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SOCIAL CHANGES IN 1930

Edited by

WILLIAM F. OGBURN



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SOCIAL CHANGES IN 1930

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INTRODUCTION

THIS volume is the fourth of an annual series on social changes. The purpose and nature of the volume will in general be known to most readers who are familiar with the earlier volumes. However, a few words of explanation are desirable for new readers.

The first purpose is to keep the sociological readers acquainted with some of the changes taking place in a world of such great change and in a time of such rapid change. To keep abreast of what is going on is a first-rate task. By selecting important fields of progress, it was thought that an approximation to a good perspective could be obtained. Then, when great changes are taking place, there is always the question of public policy. What is to be done about it? Public policy is necessarily concerned with the future. A social problem usually calls forth, particularly from an ethicist or an executive (and these comprise most of our leaders), the reaction of trying to do something to make it come out the way he desires it. Whereas, perhaps the more realistic reaction would be first to ask the question, "What is likely to happen?" and then after this to see what can be done to modify the probable course of events in the direction desired.

It is therefore desirable to learn something about what is probably going to happen. Various ways exist of getting estimates of probability on the future. There is one practical method, though somewhat rough and approximate, that has often proved useful in lieu

of more exact procedures. That is the determination of the trends in the past and their projection a bit into the near future. Hence, the value of recording trends. It appears also that the most recent changes often have the greatest weight on the nearest future; therefore the year-by-year changes are of considerable significance.

We try to keep the issues from being merely a year book of more or less unanalyzed and poorly selected records or facts. They are, rather, research papers by trained experts, though naturally the content and treatment must vary greatly, according to the subject matter of each topic.

POPULATION

TRENDS IN POPULATION INCREASE AND DISTRIBUTION DURING 1920-30

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ABSTRACT

From 1920 to 1930, natural increase contributed over four times as much to population growth as did net immigration. Annual gains in population declined about one-third from 1920 to 1930, due in part to less immigration, but chiefly to a decline of one-seventh in the number of births. The 1930-40 population increase quite likely will be as low as 9,000,000. The greater part of the increase in population from 1920 to 1930 has accrued to industrial states as compared with agricultural states, and to urban centers rather than rural communities, the last differential being still greater when allowance is made for city workers who have sought country homes. Growth of cities has been less certain than in past decades, 102 cities of over 10,000 losing in population. There was perhaps a small inverse relation between size of city and rate of population increase, but the territory adjacent to the large cities had higher rates than any size groups of cities.

Of outstanding interest in the field of population during the past year has been the information made available from the 1930 census. So far, the population of each state, city, and minor civil division has been released, together with appropriate totals. In the minds of the majority of people this probably represents the greater part of the population census, since the usual desire is to know how fast the home city and state have grown, and how their growth compares with that of neighbor or rival cities and states. Students of population, however, while also appreciating these data, are waiting with eager anticipation for more details as to nativity, age and sex composition, marital condition, and other factors which are used by them continuously in various studies. Only a part of this more detailed information has been released for a small portion of the United States up to the present time, however, so the discussion here of population trends revealed by the 1930 census must be limited to the former type of material.

The 1930 census shows an increase of 17,064,426 persons during the past decade as compared with 13,738,354 during 1910-20, while the respective rates of growth appear as 16.1 per cent and 14.9 per cent. It should be remembered, however, that the 1910 census was

taken as of April 15, the 1920 census as of January 1, and the 1930 as of April 1, making the 1910-20 interval 116.5 months and the 1920-30 interval 123 months. If allowance is made for the change in the date of enumeration and a period of exactly 10 years is used, the 1920-30 increase becomes 16,648,000, or 15.7 per cent; and the 1910-20 increase 14,151,000, or 15.4 per cent. On this basis the rate of growth for the decade just past is only very slightly in excess of that of the preceding. Both of these rates are well under that of 21.0 per cent for the 1900-1910 period.

While not many students of population problems expected the population growth to be much different from what it has been, there no doubt was a rather widespread popular belief that the 1910-20 growth was held down because of the war, the influenza epidemic, and other abnormal situations, and that subsequent decades would see an increase which would approach more nearly the pre-war rates of gain. The numerical growth, of course, is the largest yet recorded. Undoubtedly it is the largest that will be recorded during the present century. It is to be hoped that the fact that the United States is well past its maximum rate of growth, and almost surely has seen its greatest numerical growth, will rapidly become commonplace knowledge to those who think at all of population matters.

SOURCES OF THE 1920-30 POPULATION INCREASE

Knowing that there was an increase of population of 17,064,426 between the 1920 and 1930 censuses, it is of interest to ascertain how this came about. During the decade considerable progress was made in adding to the registration area for births and deaths, so that in the last year or two, most of the births and deaths that occurred were registered. In 1920, however, the death registration area contained 82 per cent of the population, and the birth registration area only 60 per cent. In trying to ascertain births and deaths for the United States since 1920 it is necessary, therefore, to do considerable estimating.

For births, the method previously used by the Scripps Foundation seems to have been fairly accurate. It is based largely on the assumptions that 92.1 per cent of the births that occurred in the registration area in 1919 were registered; that this proportion gradually in-

creased up to 95.3 per cent in 1928; and that the ratio of births in the United States to births in the registration area in each year since 1920 was the same as the ratio for children under one enumerated by the census in 1920 in the corresponding area.¹ The last of these assumptions regarding births seems reasonable; the first has been checked against available material and appears accurate; but the second has little scientific basis, being only a rough estimate, and

TABLE I
ESTIMATED POPULATION GROWTH, 1920-1930 (THOUSANDS)

Year	Population January 1	Births*	Deaths*	Excess of Births over Deaths	Net Immigra- tion†	Gain in Population‡
1920.	105,711§	2,848	1,390	1,458	495	1,948
1921.	107,659	2,946	1,255	1,691	280	1,966
1922.	109,625	2,772	1,291	1,481	277	1,754
1923.	111,379	2,795	1,361	1,434	707	2,135
1924.	113,514	2,851	1,326	1,525	295	1,815
1925.	115,329	2,790	1,364	1,426	252	1,673
1926.	117,002	2,725	1,432	1,293	304	1,592
1927.	118,594	2,625	1,355	1,270	252	1,518
1928.	120,112	2,491	1,445	1,046	216	1,238
1929.	121,370	2,399||	1,449||	950	222	1,105
1930.	122,535¶	2,410||	1,390||	1,020	90	1,110
1931.	123,645||					

* Estimated by Scripps Foundation.

† U.S. Department of Labor, *Annual Report of the Commissioner General of Immigration* (Washington: Government Printing Office, 1920-date).

‡ Excess of births over deaths plus net immigration, decreased by 0.3 per cent each year so the total gain for 10 years agrees with that shown by the 1920 and 1930 censuses.

§ *Fourteenth Census*, Vol. I.

|| Preliminary.

¶ Census enumeration for 1930, minus gain in population during January-March, 1930.

perhaps unduly optimistic. For deaths, it probably is fairly accurate to assume that the crude annual death-rate for the United States has been the same as that for the registration area in each year since 1920. In accordance with these assumptions, Table I has been prepared showing the births, deaths, excess of births over deaths, net immigration, and gain in population for each year since 1920, together with the population as of January 1.

The striking fact shown by Table I is the decline in the number of births and in the excess of births over deaths. Com-

¹ P. K. Whelpton, "Population of the United States, 1925 to 1975," *American Journal of Sociology*, XXXIV, No. 2 (September, 1928), pp. 258-61, and Table XIV.

paring 1930 with 1920 there was a decline of nearly 16 per cent in the number of births, and of 31 per cent in the excess of births over deaths. If 1921 were used instead of 1920, the contrast would be still greater, though perhaps not so fair, for demobilization was probably responsible to quite an extent for the larger number of births in 1921 than in 1920. The number of deaths has been fairly steady since 1920, although showing a slight increase as the population has grown. Net immigration varied widely from 1920 to 1923, but under the quota system since 1924, it has been fairly stable, though declining slightly. The excess of births over deaths has been much more important than net immigration in contributing to population growth, for only in 1920 and 1923 did less than four-fifths of the gain come from natural increase. In 1930, the excess of births over deaths was over eleven times as important as net immigration in contributing to population growth. Although the largest excess of births over deaths occurred in 1921, the largest gain in population occurred in 1923, due to heavy immigration. But what a contrast between either of these years and 1930! The gain in population in 1930 was only 56 per cent of that in 1921 and 52 per cent of that in 1923.

Considering how large and consistent has been this falling off in growth, what is the outlook for the future? The sales manager of a large auto concern stated recently that their production program for 1930-40 was being based on a population reaching 140,000,000 by 1940. This estimate is easily obtained by increasing the 1930 population by 15 per cent, this being slightly less than the rate of increase from 1910 to 1920 and from 1920 to 1930. But this method, though simple, appears quite inadequate in this case. With only 1,110,000 persons added to the population during 1930, and with each year since 1923 showing a smaller increase than its predecessor, it is almost certain that the 1930-40 gain will be less than 12,000,000, and quite likely that it will be as low as 9,000,000. This would mean a rate of growth of from 7.5 per cent to 10 per cent, and a 1940 population of between 132,000,000 and 135,000,000, the smaller figures being the more probable, and the larger ones the upper limit. Apparently the years when there will be no further gains in population are fast approaching.

Going back for a minute to consider the accuracy of Table I, on which this discussion is based, it is believed that the "gain in population" column is quite precise since only a very slight adjustment was necessary to make the figures for 1920-29, inclusive, add up to equal the intercensal increase. The January 1 population estimates should be equally reliable, since based on the 1920 census and these annual gains. It is not felt, however, that the same degree of accuracy exists as regards the figures for births, deaths, and net immigration shown for each year. An adjustment has been made for unregistered births, as previously indicated, but there is little basis for knowing whether the improvement in the accuracy of birth registration has exceeded or fallen short of the allowance made. While death registration is much more complete than birth registration in the respective registration areas, it is possible that unreported deaths may run up as high as 5 per cent of the total deaths in certain states. No attempt has been made in preparing these estimates to check up on this matter, nor on any improvement in the accuracy of death registration. With net immigration, as with deaths, the figures here given probably understate the case. Not all incoming aliens pass through the proper official channels; for example, the sailors who desert their ships in our ports, and much more numerous, the Mexicans who cross our border in the long intervals between towns or immigration outposts. Just what addition should be made to net immigration is a matter of conjecture, however. Possibly the adjustment would about offset the non-registered deaths, for, as previously stated, there is little chance for error in the annual gain in population.

To those who have been making or using intercensal estimates of population, it is a matter of interest to compare those made by various sources with the census enumeration. Table II shows that four of the more important predictions were very close to the actual count. The largest divergence from the enumeration appears to amount to about 1.1 per cent, and the smallest to .4 per cent. Three of the four estimates understate the situation, only that of the Scripps Foundation being higher than the census. The small difference between the Pearl and Reed estimate and the enumeration is quite surprising, but is not likely to be repeated in future census

years unless their curve of population growth is changed, since their estimate for the population increase from 1930 to 1940 is 13,921,000, whereas 9,000,000 is a much more reasonable figure, as previously stated in this paper.

The main reasons why the Scripps Foundation estimate was not closer to the census is that births in 1927, 1928, and 1929 were not as numerous as was anticipated. This estimate for January 1, 1930,

TABLE II
COMPARISON OF POPULATION ESTIMATES WITH THE 1930 CENSUS

SOURCE	PUBLISHED ESTIMATE FOR DATE NEAREST TO APRIL 1, 1930			ESTIMATE FOR APRIL 1, 1930 (THOUSANDS)*	PERCENTAGE OF THE CENSUS ENUMERATION
	Date Published	Date to Which Estimate Applies	Population (Thousands)		
National Bureau of Economic Research	Jan. 15, 1930	July 1, 1928	119,306†	121,353	98.9
Bureau of the Census	Mar. 4, 1928	July 1, 1928	120,013†	122,060	99.4
Pearl and Reed	August, 1924	June 1, 1930	122,397§	122,206	99.5
Scripps Foundation	Sept., 1928	Jan. 1, 1930	122,990||	123,230	100.4

* Calculated by the Scripps Foundation from the preceding column, and birth, death, and immigration data in Table I.

† National Bureau of Economic Research, Inc., *News-Bulletin*, No. 36 (January 15, 1930).

‡ Department of Commerce, mimeographed press release, March 14, 1928.

§ Raymond Pearl, *Studies in Human Biology* (Baltimore: Williams & Wilkins Co., 1924), p. 590. The month and day for this estimate are not stated, but the dates of the enumerations used in calculating the curve of population growth are as follows: 1790-1820, the first Monday in August; 1830 to 1900, June 1; 1910, April 15.

|| P. K. Whelpton, "Population of the United States, 1925 to 1975," *American Journal of Sociology*, XXXIV, No. 2 (September, 1928), pp. 253-70. "Total, including 'other colored,' 123,600,000" less 610,000 allowed for the estimated under-enumeration of children under 3 years of age as explained on pages 256-57 of the article.

was made in early 1928 when no data were available as to births and deaths in 1928 or 1929 and when the 1927 data were still incomplete. The belief was then that births in 1927, 1928, and 1929 would average approximately the same as births in 1925 and 1926,² which years were somewhat under those preceding, as was shown in Table I. This would have given a total of 8,273,000 births for these three years, but as a matter of fact, the actual number of births was 7,532,000, or 741,000 under the estimate. The Scripps estimate for future years which were published at that time have a still larger error on this account and need to be revised downward. This will be done as soon as data on age distribution are available from the 1930 census.

² P. K. Whelpton, *ibid.*, p. 260.

DISTRIBUTION OF THE 1920-30 POPULATION INCREASE

Taking up the distribution of the gain in population between 1920 and 1930, California and Florida had the largest rates of increase, with Michigan, Arizona, New Jersey, Texas, North Carolina, Oregon, and New York all gaining over 20 per cent. Of these states, New Jersey, New York, California, and Michigan are primarily industrial and commercial, while North Carolina and Texas have been experiencing a rather rapid industrial development and urban growth. Possibly the rapid increase of New York is the most surprising of these states. About three-fifths of its growth took place in New York City, which might have been expected to grow considerably less rapidly because of its size and population density. Probably the same factors that brought about this rapid growth in New York City were responsible for so much of the gain in New Jersey occurring in the northeastern part of the state, and for Connecticut being the only one of the New England states to grow as rapidly as the nation as a whole.

States whose rate of growth was under 10 per cent during the decade just ended include Maine, New Hampshire, and Vermont; all of the West North Central states; and Delaware, Virginia, South Carolina, Georgia, Kentucky, Arkansas, Montana, and Idaho. Barring Delaware, these are either New England states or states in which agriculture is the important occupation.

The greatest shifts in rate of growth during 1920-30 as compared with the preceding decade were the declines that occurred in the Mountain states. Although New Mexico and Nevada grew faster than in 1910-20, the rate for the division as a whole was cut from 26.7 to 11.0 per cent. In the balance of the country, the larger declines (i.e., amounting to one-fourth or more) occurred in Massachusetts, Connecticut, Ohio, Minnesota, Iowa, North Dakota, Nebraska, Delaware, Virginia, South Carolina, Georgia, and Arkansas. Barring Ohio and Delaware, the statement made above regarding states with a rate of growth of less than 10 per cent may be repeated for states whose rate of growth declined decidedly; namely, they are either New England states, or agricultural states.

A clearer idea of any relation between agriculture and population growth may be secured by listing the states according to the propor-

tion of employed persons engaged in agriculture in 1920. Looking at Table III it appears that there is an increase in the rate of population

TABLE III

EFFECT OF AGRICULTURE ON POPULATION GROWTH, BY STATES

State	Percentage of Employed Persons in Agriculture in 1920	Rate of Population Increase 1920-30	State	Percentage of Employed Persons in Agriculture in 1920	Rate of Population Increase 1920-30
Mississippi.....	70.2	12.2	Wisconsin.....	30.9	11.7
Arkansas.....	64.4	5.8	Missouri.....	30.1	6.6
South Carolina..	62.4	3.3	Utah.....	29.0	13.0
North Dakota...	57.9	5.3	Oregon.....	28.5	21.8
Alabama.....	55.6	12.7	Arizona.....	27.7	30.3
Georgia.....	54.3	0.4	Colorado.....	27.3	10.2
South Dakota...	54.2	8.8	Indiana.....	26.3	10.5
North Carolina..	53.3	23.9	West Virginia...	25.6	18.1
Tennessee.....	48.2	11.9	Maine.....	24.9	3.8
Idaho.....	47.5	3.0	Nevada.....	22.9	17.6
Kentucky.....	46.3	8.2	Washington....	22.7	15.2
Oklahoma.....	46.2	18.1	Michigan.....	19.7	32.0
First twelve states....	55.0	10.4	Third twelve states....	26.1	15.7
Texas.....	46.2	24.9	Delaware.....	19.4	6.9
New Mexico....	45.1	17.5	California.....	18.0	65.7
Louisiana.....	42.7	16.9	Maryland.....	15.9	12.5
Nebraska.....	40.9	6.3	New Hampshire.	15.8	5.0
Montana.....	39.7	-2.1	Ohio.....	15.7	15.4
Iowa.....	38.1	2.8	Illinois.....	14.5	17.7
Kansas.....	37.3	6.3	Pennsylvania...	8.3	10.5
Virginia.....	36.2	4.9	New York.....	7.0	21.2
Minnesota....	33.9	7.4	Connecticut....	6.4	16.4
Florida.....	32.2	51.6	New Jersey....	4.7	28.1
Vermont.....	32.0	2.0	Massachusetts...	3.3	10.3
Wyoming.....	31.9	16.0	Rhode Island....	3.0	13.7
Second twelve states....	39.5	13.7	Fourth twelve states....	10.0	20.1
First twenty-four states	47.7	12.0	Second twenty-four states	14.5	18.8

growth as the proportion of workers in agriculture declines. Thus, the twelve states with the highest proportion of persons in agriculture had a population increase of 10.4 per cent, while the twelve states

with the lowest proportion in agriculture gained 20.1 per cent in population. The other two groups occupied an intermediate position. A correlation coefficient based on these data would not be large, but nevertheless it is apparent that the agricultural states had less likelihood of experiencing an increase in population of 10 per cent or more than those in which manufacturing and commerce were more important.

The outstanding exceptions among the agricultural states were North Carolina, Oklahoma, Texas, and Florida, all of which had high rates of increase during the decade. In North Carolina this seems to have been due to a considerable extent to industrial development, the population of urban communities increasing 57 per cent, and rural communities 16 per cent. In Oklahoma and Texas there has been the oil development and an expansion of the cotton-growing area in the western counties where the boll weevil causes little damage; but in both these states the urban rate of gain was several times as large as the rural rate. Florida, of course, experienced its boom. Not all the important industrial states grew rapidly in population; New Hampshire, Delaware, Massachusetts, and Pennsylvania having particularly low rates in this group. Many students of population have been expecting the New England states to have small population gains, but why Pennsylvania, Delaware, and Maryland should have grown less rapidly than the states surrounding them needs further study.

Considering the comparative profitability of business, manufacturing, and agriculture since the war, it is not surprising that so little of the population growth has accrued to agricultural states. Agriculture has made important increases in its efficiency of production, so that fewer people are needed to produce the same output. In most lines of industry such greater efficiency may permit price cuts, which will increase consumption enough so that as many or more workers may be needed to supply the expanded market. Agriculture is less fortunate in this respect, however, since the demand for most of its important products is relatively inelastic, and lower prices have little effect on increasing consumption. With this greater efficiency in agriculture there has been some expansion of output, but, since there has been little increase in consumption in response to

price declines, prices and profits have continued to fall, and for some time have been so low that people have been forced off farms in large numbers. Cheap food has been a boon to the cities and industrial states, however, and partially explains why they have been so prosperous and have had such large rates of population increase.

Another way of studying the relation between agriculture and population growth is by comparing rural and urban gains from 1920 to 1930. According to the *Fifteenth Census*, the rural population increased from 51,406,017 in 1920 to 53,820,223 in 1930, or 4.6 per cent. This is an understatement of the case, however, since all places of less than 2,500 population in 1920 which passed this limit during the decade were classed as urban in 1930 and since a change was made in the definition of urban and rural areas.³ Taking the same rural communities in 1930 as in 1920, there was a gain of 8.8 per cent over 1920. Similarly, if the same urban centers are considered in 1920 and 1930, the population increased from 54,496,468 to 67,067,745, or at the rate of 23.1 per cent. This is over two and one-half times as large as the rate of growth for rural communities and agrees with the previous discussion concerning the relation between agriculture and population.

The rural rate of increase of 8.8 per cent during 1920-30 is slightly larger than that of 6.8 per cent for 1910-20, while the urban rate of 23.1 per cent is slightly less than that of 24.5 per cent for the earlier decade. According to the statements made regarding the economic situation of agriculture and urban industries, it would be expected that the situation should have been reversed, that the rural rate of increase should have been lower in 1920-30 than in the previous decade and the urban rate higher. The difficulty is that a considerable part of the rural increase in recent years is due to the development of "acre-lot colonies" along the roads near cities and towns and has no connection with agriculture. Thus, the rural population in Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania increased 1,085,345 from 1920 to 1930, by far the greater part being due to city workers seeking country homes. On the other hand, Indiana, Illinois, Wisconsin, and the seven West North Central

³ U.S. Bureau of the Census, *Fifteenth Census of the United States* (1930); United States Summary, *Population Bulletin*, 1st ser., pp. 1-2.

states (which comprise about the best of our farming area) had a gain in rural population of only 70,452, Iowa and Missouri even losing 48,549 persons from rural communities. In the remaining states the situation is not so clean-cut. The rural increase of 648,801 in California, the largest of any state, is probably more suburban than agricultural. In Texas, North Carolina, and Oklahoma, where the gain in rural population totaled 943,429, the greater part undoubtedly was agricultural, due to the expansion of cotton farming into areas relatively free from the boll weevil. On the whole, however, it is evident that "acre-lot colonies" contributed a large share, certainly two-fifths and probably over one-half, to the rural growth, and that without this new development, the 1920-30 rate of rural gain would have been still farther under the urban rate for this decade, and well below the rural rate for 1910-20. This can be shown more convincingly when the 1930 data on farm population are released by the Bureau of the Census.

Considering the distribution among cities of the increase in urban population during the past decade, there are some rather interesting situations. In the first place, it appears that the growth of a city is becoming an increasingly uncertain factor. In the past there has been plenty of variation in rate of growth shown by different cities, some nearly doubling in size between censuses, and others growing at a much less rapid rate. No census previous to 1930, however, shows so many cities actually falling off in population. In spite of an increase of 23.1 per cent in total urban population from 1920 to 1930, there were 102 cities of over 10,000 in 1920 that declined in population during the decade compared with 57 cities in the 1910-20 decade and 31 in the 1900-1910 decade.⁴ Considering only cities of over 50,000, the 1930 census shows that 16 declined in population since the previous census, while only two cities of over 50,000 declined in population from 1910 to 1920, and only one from 1900 to 1910. Additional comparisons may be made from Table IV.

Why did so many cities lose in population? In a few cases it is a

⁴ Annexations are discounted in these comparisons; i.e., the population in 1920 of territory annexed to a city between 1920 and 1930 is included in the population of the city in 1920. This was done wherever possible, which includes all important annexations.

matter of the population growth accruing to the suburbs—the development of the "acre-lot colonies" previously mentioned—so that the city and adjacent territory gained in population even though the city proper did not. It is probably only a matter of time until annexations will be made which will result in these cities having a larger population than ever before. Many other cities, however,

TABLE IV
SIZE OF CITY AND POPULATION GROWTH

SIZE OF CITIES AT BEGINNING OF DECADE	1920-30			1910-20		
	Number of Cities*	Rate of † Increase	Number of Cities De- creasing in Population	Number of Cities*	Rate of † Increase	Number of Cities De- creasing in Population
Over 1,000,000	4	24.1	.....	3	19.3	.....
500,000-1,000,000	8	21.8	.....	5	20.0	.....
250,000-500,000	13	15.4	.....	11	34.9	.....
100,000-250,000	43	20.2	4	31	22.3	.....
50,000-100,000	77	23.0	12	59	31.0	2
25,000-50,000	142	26.3	9	120	26.5	8
15,000-25,000	210	24.0	32	154	29.4	15
10,000-15,000	263	26.2	45	222	23.2	32
5,000-10,000	712	25.3	143	601	21.6	90
2,500-5,000	1,238	25.0	287	1,048	22.6	246
All cities	2,710	23.1	532	2,254	24.5	393
Rural		8.8	.....		6.8	.....

* The number of cities in certain size groups is different from that shown by the census for the following reasons: (a) Small cities which were annexed to larger cities during the decade are combined with them at the beginning of the decade and not listed separately. This may shift the annexing city to a larger size group. (b) In 1930 the Bureau of the Census transferred from urban to rural certain townships in New Hampshire, Massachusetts, and Rhode Island (see United States Summary, *Population Bulletin*, 1st ser., pp. 1-2). These have been considered here as being rural in earlier census years. (c) The Bureau of the Census also transferred certain unincorporated places from rural to urban groups (*ibid.*). These have been considered here as being urban in earlier census years if their population was sufficiently large.

† In computing these rates, the same cities are in each size group at the beginning and end of a decade, and the population of each city at the beginning of a decade includes that of places annexed during the decade whenever this adjustment could be made, which includes nearly every annexation and all the important ones. The communities classed as rural at the beginning of a decade are so classed at the end of that decade.

cannot so easily annex suburbs and continue to show fair growth. Here there seems to be a real indication of greater competition between cities for additional inhabitants. Certain cities have inherent advantages over other cities in their location with reference to such factors as climate, raw materials, power, or markets. In addition, they may be temporarily ahead in such matters as labor supply, honest government, or community organization. When the nation's population was increasing at the rate of 20 to 30 per cent in each

decade there were enough additional people so that all cities could expand. But when growth drops off to 15 per cent or less, these differences make themselves felt increasingly, and the less fortunately located or well-managed cities may expect to decline in population. Quite likely the 1930-40 decade will show a larger number of cities declining in population than did the decade just passed. This will have its effect on land values, civic pride, and many other factors.

Has there been any relation between size of city and population growth during the last decade? According to Table IV, the various size groups of cities under 100,000 increased at about the same rate, the extremes being a gain of 26.3 per cent for cities of 25,000 to 50,000 and of 23.0 per cent for cities of 50,000 to 100,000. In the size groups over 100,000, there was a little greater variation. Cities of 100,000 to 250,000 increased 20.2 per cent as a group, cities of 250,000 to 500,000 gained 15.4 per cent (the smallest rate for any of the urban groups), cities of 500,000 to 1,000,000 increased 21.8 per cent, while cities of 1,000,000 or more gained 24.1 per cent. The increase of 21.8 per cent for cities of 500,000 to 1,000,000 is due chiefly to the presence of Los Angeles, which gained 114.8 per cent in population. If Los Angeles is excluded from the group, the remaining seven cities show a gain of 10.4 per cent, well under that of any other urban group. Such an omission may form a dangerous precedent, yet perhaps the majority of us in this case would agree with the southern Californians that Los Angeles is "different." In the group of largest cities, Detroit increased 56.8 per cent, Chicago, 25.0 per cent, New York, 23.3 per cent, and Philadelphia, 7.0 per cent. Three of these four cities have rates well above those of the bulk of the cities in the next two size groups. If Los Angeles, Detroit, Chicago, and New York could be overlooked, the average growth of the groups of cities would show a decided decline from the 25,000 to 50,000 group and upward. But four such important cities may not be easily passed over, and when they are included the groups show little definite trend.

It is in the territory adjacent to the larger cities, however, that population growth has been especially rapid. As Table V shows, the rate of population increase from 1920 to 1930 for the area surround-

ing cities of 100,000 or over was well above that of the city proper in each size group. This differential is particularly great for cities of

TABLE V

POPULATION AND PERCENTAGE INCREASE OF CENTRAL CITIES AND ADJACENT TERRITORY* FOR CITIES OF 100,000 AND OVER IN 1920, AND IN 1910, BY SIZE GROUPS

	POPULATION		PERCENT-AGE INCREASE	POPULATION		PERCENT-AGE INCREASE
	1920	1930		1910	1920	
			1910-20			
All cities of 100,000 and over:						
In central cities†	26,199,869	31,877,902	21.7	19,784,122	24,383,493	23.2
In adjacent territory .	9,522,962	13,681,756	43.7	6,518,945	8,536,975	31.0
Total. . .	35,722,831	45,559,658	27.5	26,303,067	32,920,468	25.2
Cities of 100,000-249,999:						
In central cities .	5,385,056	6,461,389	20.0	4,464,976	5,499,467	23.2
In adjacent territory	2,919,974	3,590,957	23.0	1,739,424	2,062,689	18.6
Total. . . .	8,305,030	10,052,346	21.0	6,204,400	7,562,156	21.9
Cities of 250,000-499,999:						
In central cities. .	4,177,209	4,880,157	16.8	3,721,915	5,098,527	37.0
In adjacent territory	560,586	888,774	58.5	601,341	1,118,264	61.8
Total. . . .	4,737,795	5,768,931	21.8	4,413,256	6,216,791	40.9
Cities of 500,000-999,999:						
In central cities. .	5,491,700	6,709,849	22.2	3,091,820	3,639,967	17.7
In adjacent territory	2,526,580	4,271,903	69.1	1,587,484	2,004,981	26.3
Total. . . .	8,018,280	10,981,752	37.0	4,679,304	5,644,948	20.6
Cities of 1,000,000 and over:						
In central cities. .	11,145,904	13,826,507	24.1	8,505,411	10,145,532	19.3
In adjacent territory	3,515,822	4,930,122	40.2	2,500,696	3,351,041	34.0
Total. . . .	14,661,726	18,756,629	27.9	11,006,107	13,496,573	22.6

* In cities of 200,000 and over, "adjacent territory" includes only the metropolitan district outside the city proper as defined in the *Fourteenth Census*, I, 62.

† Does not include (a) Cambridge, Camden, Jersey City, Newark, Paterson, and Yonkers, since they are in the adjacent territory of larger cities, or (b) Memphis, for which data are not available regarding adjacent territory.

250,000 to 1,000,000, and would have been greater for the larger cities if Detroit had not increased faster than its adjacent territory.

To some extent, where the central cities had a low rate of gain themselves, there was a high rate of increase in the adjacent territory. Thus, the percentage increases of the city and the adjacent territory for Baltimore were 10 and 100, for Rochester, 11 and 138, for Cleveland, 12 and 116, for Indianapolis, 15 and 97, for St. Louis, 6 and 282, and for Denver, 12 and 82. But Boston, Providence, Philadelphia, and Pittsburgh all had gains of less than 10 per cent themselves, yet the rates for their adjacent territory were only 24, 27, 40, and 26, respectively.

During 1910-20 there was less difference in the rate of growth of central cities and adjacent territory than in the decade just past. In fact, the central cities in the 100,000 to 250,000 group increased at a higher rate than the surrounding area. To some extent this more rapid suburban growth in 1920-30 is the result of the development in auto and bus transportation, which permits people to live farther from their work. But there are also certain indications that it represents a greater degree of decentralization in these metropolitan areas.

To a populationist, a transfer of population growth from large cities to adjoining areas, or better yet, to smaller cities, would seem to be a healthy situation. It would appear that the large city with its terminal congestion, traffic problems, high taxes, costly building sites, and other drawbacks would not be as efficient a place in which to live and work as the smaller city. The relation between size of city and its economic and social advantages, however, has not received the attention it deserves. Too much of the population growth and the industrial and commercial development in the past has accrued to cities on a hit-and-miss basis, without regard to fundamental conditions. It is to be hoped that much more factual material may be made available on the question of the efficiency of various cities with particular regard to the size factor. This could be the foundation for a greater amount of conscious planning by economic and social leaders, which would speed up the improvement in the distribution of our future population growth.

NATURAL RESOURCES

GEORGE OTIS SMITH

Chairman of the Federal Power Commission

ABSTRACT

The drought.—Annual and seasonal deficiencies in rainfall and the variety of social consequences. Need of hydrologic research. *Mineral production.*—Slowing-down of industry, with output of metals 15-30 per cent below that of previous year. Coal mines and oil wells outstanding examples of overdevelopment. *Forestry the pioneer in conservation.*—Decreasing demand for lumber and increased activity in fire protection and forest-planting together postpone forest depletion.

The most notable item in the record of the influence of natural resources upon social progress in the United States for 1930 was the drought. A year ago reference was made in my article for this *Journal* on social change to the educational effect of the local shortage of water in 1929, and unfortunately the unexpected and unprecedented scarcity of precipitation has continued over much wider areas, and millions have learned from painful experience to give water its due. As remarked by F. H. Newell, "There may have been worse droughts, but none have had a greater emotional or political effect." The chief hydraulic engineer of the United States Geological Survey, on the other hand, says that this drought, which at the time of this writing (February 14, 1931) has not ended, is remarkable in three respects: the broad area over which it has prevailed, its great intensity in much of this area, resulting in new low records of flow in many rivers, and its long duration.

Although the United States Weather Bureau records for 1930 show that eight states had normal or above-normal rainfall, twelve others had but 75 per cent or less of normal. These twelve-month deficiencies influenced run-off and ground-storage conditions, thus affecting, on the one hand, the volume of stream flow and consequently navigation, water power, irrigation, and the water supply of large cities, and, on the other hand, the level of underground waters and consequently the water supply of small communities and farms. So it follows that the drought has given an added impulse to the study of the country's water supply for both urban and rural population. City engineers are looking to new and more distant sources

of the water needed to afford insurance against shortage, and farmers are deepening their wells or seeking some other supply than the "perennial" springs that failed in 1930.

More critical, however, in its general bearing upon social problems is the seasonal distribution of deficiencies in precipitation. It is the shortage of rainfall during the summer that causes crop failure, and so it is that while Arkansas had 96 per cent of normal rainfall in 1930, it was the fact that she had only 22 per cent of normal rainfall in June, 19 per cent in July, and 70 per cent in August that together devastated her. No other state had so great a departure from normal summer rainfall. Moreover, the unusually heavy rainfall and cool weather of May in Arkansas had made conditions unfavorable for farm work in the same area. In less measure similar shortages were experienced in other states, and whatever the usual productiveness of farm lands small yields at the most were harvested in 1930, and general need of public relief was the result.

Attention has been repeatedly called by engineers to the shortage in hydrologic data and the need for country-wide research to the end that the necessary facts may be available for planning the highest use of our national surface and ground water resources. Water-supply conditions vary greatly in different localities, and there are also wide variations in the seasonal and annual supplies for any particular area. Therefore investigations must be adequately distributed and long continued if necessary data for wise development are to be made available. Fortunately the activities of the United States Geological Survey with respect to water resources now cover a period of over forty years and were never more widely distributed than in 1930, there having been 2,346 recording stations in 47 states in operation on July 1. The effect of the long-continued deficiencies in rainfall upon stream flow can thus be studied over large enough areas to yield worth-while generalizations in regard to the drought of 1930, which probably was as severe as any other the country has ever experienced. Such studies are in progress in the water-resources branch of the Geological Survey.

The low stage in the large rivers not only impeded navigation but also interfered with industry generally through the increased pollution and, in the lower courses, the higher salinity of the water. Of

the effect upon water-power operation a quantitative measure is possible. For the year as a whole the percentage of electricity produced by water power in the public-utility plants decreased from 36 in 1929 to 34 in 1930, and this even with an increase of about 8 per cent in the installed capacity of water-power plants. This decline in water-power operation followed a decline in 1929, the first since 1921, and was likewise due primarily to shortage of water. Here again, however, average figures for the whole country mask the truth, inasmuch as the shortage in precipitation was regional and seasonal rather than country-wide and annual. It was in the second half of the year that there was a sharp drop in hydroelectric output. Thus, in West Virginia, from July to December, the hydroelectric plants produced only 13 per cent of the output for the same period in 1929. Corresponding figures for Maryland were $28\frac{1}{2}$ per cent and for Pennsylvania 37 per cent.

In the Middle West the shortage of water also had other social influences, because of the effect upon many summer resorts and recreational centers as well as upon the inland fisheries. Conservation of water resources has thus taken on a new meaning to citizens generally, and new support has been won for studies of stream flow and of underground supply.

Compared with the preceding year of prosperous activity, 1930 seemed a year of depression to the mining industry. As the source of raw materials and fuels upon which all other industry depends and which furnish more than half the burden carried by the railroads, the mines, quarries, and wells of the country feel the effect of the ups and downs of business and thus themselves accentuate the peaks and valleys of the industrial background.

The mines of the United States shared the effects of a world-wide decrease in demand for metals. In the sad expression of one mining man, "The world seems to be suffering from a glut of raw materials, mineral and agricultural." The slowing-down of mining activity in some large metal districts amounted to as much as a 40 or a 50 per cent reduction in output compared with "that good year" 1929; and for the essential metals, iron, copper, lead, and zinc, the decrease in output for the whole country was from 15 to 30 per cent. In two

metals alone was there an increased output, amounting to about 11 per cent in manganese ores and 1 per cent in gold.

Fortunately, the usual program was curtailment rather than shutdowns, part-time employment rather than cuts in the force, and maintenance of wage scale rather than reductions. The lower market prices for the products also stimulated an active interest in reducing costs, and better technology in many branches of the industry and better use of the products may follow as the one happy result of adversity.

As the common fuel of transportation and industry, bituminous coal suffered a severe reduction in total output, the tonnage mined being less than that for any other year since 1923. The coal industry shares with the oil industry the doubtful distinction of being chronically overdeveloped, and of the two the condition of the idle coal mines is the more serious in that the operation of oil wells calls for relatively less manpower than coal mining and therefore opening up or shutting down of oil wells is a smaller factor in the employment problem.

The petroleum industry has continued its notable progress toward effective conservation of a natural resource. The laudable efforts of the oil-producers of the United States during the past year to curtail their output have prevented a disaster. The conservation movement has been well organized for two years, and the committees made up of high officials in the industry have effectively co-operated with state and federal officials, with the result that the production of 1930 has been held down fully 10 per cent below that of 1929. Thus, the oil industry attained in 1930 more of a balance between the refiners' demand for crude oil and the supply produced at the wells. And this was accomplished despite the discovery of new pools and large "gushers" of the type that in other times have been allowed to flood the country with unneeded oil. The richest of the newer fields in California has now been brought under economic control, through an agreement for unit operation in which the federal government will be a partner—indeed, the government has been the prime mover in working out this method of maintaining balanced production to meet the market demands for oil and natural gas without waste.

Conservation, both as a policy and as a practice, had an early start as applied to the forests of the country: United States forester Stuart credits the federal forestry policy with nearly sixty years of development. Timber culture in treeless regions, timberland reservations, and application of scientific forestry to both publicly and privately owned lands were successive steps in the development of a national policy of insuring the highest usefulness of this natural resource.

In the past twenty-five years, however, the country's lumber production has declined from forty-six billion board feet to an estimated twenty-seven billion in 1930. This downward trend is in marked contrast with the output from mines and quarries, which compete with the forests in supplying building materials, but like the mineral industry the lumber industry suffers from overdevelopment, with consequent profitless operation and wasteful utilization. The time was opportune for the President's Timber Conservation Board, appointed in December, 1930, to begin its studies.

Last year thirty-eight states provided some degree of fire protection of publicly and privately owned forest lands, and these protective systems were co-operatively financed, yet the less than \$5,500,000 expended provided only a little over a cent an acre for the forest or potential forest lands needing such protection. The Forest Service's estimate for a complete job of fire protection is nearly two and a half times the amount expended in 1930.

Another type of co-operative activity in forest conservation that is being promoted under the Clarke-McNary Law is the distribution of forest-tree seedlings to landowners. Twenty-five million young forest trees were thus planted in 1930, and thirty-nine states and the territories of Hawaii and Porto Rico co-operated in this tree-planting on a large scale.

With a decreasing demand for forest products and the increased activity in fire protection and forest-planting, together with the interest now shown in the economics of the lumber industry, it would seem that serious consequences of timber depletion might be averted and that wood could hold its own as a basic raw material available for use by future generations of American citizens.

INVENTIONS AND DISCOVERIES

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ABSTRACT

Even at close range, discoveries in applied science and technological inventions are of value in predicting the social effects that may come after them. In this article there are listed a number of discoveries and inventions reported during the year 1930 that may have significant influences. They are in the fields of medicine and public health, physics, engineering, aviation, agriculture, mechanical devices, biology, vitamins and ultra-violet rays, chemistry, and miscellaneous fields.

The following list of inventions and discoveries in the field of applied science reported in 1930 is presented for the possible significance of their social effects and their influence on human welfare. Many other fields should perhaps be represented, but the most satisfactory reporting is done in those listed. Better reporting is assured in one field, at least, for by a recent act of Congress a plant breeder who originates a new variety of plant by asexual or vegetative means is entitled to a patent on his living product. The sources of this list were the compilations of Science Service, the National Geographic Society, the issues of the *Scientific American*, the *Popular Science Monthly*, and the *Literary Digest*.

It is impossible to say so close upon the heels of discoveries or inventions what their social effects will be. Many will be impractical because of their cost. Others will be supplanted by easier and cheaper substances or methods. Discoveries are not always important in themselves; they assume significance only in relation to others. The pneumatic rubber tire would probably not have had its great significance had its development not been followed by that of the automobile. Other inventions, like the radio, are combinations of scores of lesser discoveries and inventions, and years may elapse before their combination into a useful device. While it is impossible to estimate the importance of these discoveries at such close range, they are of some predictive value and are useful to show the trend of interest.

MEDICINE AND PUBLIC HEALTH

Taking the patient's blood from his body, purifying it, and putting it back again is an operation that has proved successful in several European countries. (P)¹

Patients suffering from paralysis of the respiratory muscles are now being treated in an artificial breathing machine invented by Dr. Phillip Drinker, Harvard School of Public Health. In the boxlike case the raising and lowering of air pressure causes expansion and contraction of the chest. (P)

The germ which causes multiple sclerosis or "creeping paralysis" was discovered by Sir James Purves-Stewart and Kathleen Chevassut, Westminster Hospital, London. (P)

A new germ to bacteriologists, "micrococcus coryza," is reported to be the cause of common colds. A vaccine which may give immunity against colds for from one to three years is reported by Dr. J. A. Pfeiffer, University of Maryland. (S)

"Tribomethyl alcohol," an anesthetic administered internally, used mainly in abdominal operations, lessens the pain following an operation. The anesthetic was produced by Professor R. Willstaetter and Dr. C. Duisberg, German chemists. (P)

The United States Public Health Service announced that canned salmon contains a substance which prevents pellagra. (A)

Injections of pituitary extract lead to the absorption of fat by the liver, indicating that disturbed pituitary conditions lead to obesity, according to Dr. W. Raab, Vienna. (G)

Digestive poisons may cause deafness, concludes Dr. M. J. Gottlieb of New York after research indicating that many persons who had become deaf showed a previous history of belching, heartburn, fulness after eating, and alternate attacks of diarrhea and constipation. (L)

Eskimos eating white man's food are developing diseased teeth and weakened jaws while those removed from grocery stores are not, finds H. B. Collins, Jr., Smithsonian Institution. (G)

¹ Letters in parentheses refer to sources as follows: A: *Scientific American*; G: compilation of the *National Geographic Society*; L: *Literary Digest*; P: *Popular Science Monthly*; S: *Science Service News Letter*.

Clean human skin destroys more than 90 per cent of all bacteria coming in contact with it, say Drs. H. A. Singer and Lloyd Arnold of Illinois. (G)

"Alcotate," a petroleum derivative, useful as a wood alcohol denaturant, will not blind or kill, but gives alcohol the taste of bad eggs and garlic flavored with gasoline and chloroform. (L)

Mutes may now talk through the aid of a thin metal reed, which, when attached to the windpipe of a human being, performs all of the functions of the larynx. The reed was developed by Dr. R. R. Riesz, Bell Telephone Laboratories. (L)

The heart's output of blood has been measured by determining the amount of acetylene gas taken up by the lungs, finds Dr. A. Grollman, Johns Hopkins University. (S)

Chemical changes taking place in the brain have been studied by taking a sample of blood from the artery leading to the brain and another from the vein which drains it. The experiment was made by Dr. Abraham Meyerson, Boston. (S)

Organic diseases may result from mental disturbances according to Dr. C. C. Wholey, Pittsburgh. (G)

Through the use of cough plates, early diagnosis of whooping cough has been made by Dr. L. W. Sauer and Leonora Hambrecht, Evanston, Illinois. (G)

An enzyme which has both protective and curative action on Type III pneumonia in mice, and possibly in men, was extracted from a bacillus found in the soil of New Jersey cranberry bogs. (S)

The florimeter, an instrument which permits an early diagnosis of heart disease by measuring shortness of breath, was demonstrated by Dr. P. V. Wells, New Jersey. (S)

New hope for recovery of child victims of serious burns was given through the use of tannic acid solution by Dr. E. C. Davidson, Detroit. (S)

Studying five hundred consecutive cases of indigestion or abdominal distress, Dr. W. C. Alvarez, Mayo Clinics, found disease of the gall bladder the most frequent single cause. Disease of the stomach could be demonstrated in only twelve of the cases. (G)

A phenal compound, tri-orthocresyl phosphate, was found by the

United States Public Health Service to be the adulterant which caused thousands of cases of partial paralysis from drinking bootleg Jamaica ginger. (A)

A Roentgen speech film showing the movements of the larynx, hyoid bone, and tongue combined with the sounds created has been developed by Dr. Gutzman, Berlin, and will be of great aid in instructing the deaf. (G)

BIOLOGY

The internal organs of an animal were kept alive twelve hours after the animal had died by Drs. J. Markowitz and H. E. Essex, Mayo Clinics. (S)

A modification of the interferometer, making it possible to see a plant grow, was devised by Professor K. W. Meissner, Frankfort, Germany. (G)

“Progynon” is the term applied to the pure-sex hormone produced as a crystalline substance by Dr. M. Butenandt, University of Göttingen. (G)

CHEMISTRY

The United States Bureau of Mines announced that ethyl mercapton, added to commercial gas, prevents gas asphyxiation by its terrible odor. (G)

Crystals of rubber were obtained for the first time in chemical laboratories by the United States Bureau of Standards. (S)

Bacteria obtained from brewer's malt may be used to liberate vegetable oil from the cell walls of plant tissue according to J. W. Beckman, Oakland. (S)

Artificial silk and other products were made by exposing a mixture of water and carbon dioxide to ultra-violet rays. The addition of a common bacterium to the sugar thus produced gave cellulose, according to Dr. Harold Hilbert, McGill University. (G)

Rayon filaments two and one-half times finer than silk were produced by Professor C. E. Mullins, Clemson College. (G)

Xylose sugar was extracted from cottonseed-hull bran at the United States Bureau of Standards. It can be fermented into alcohol, acetone, lactic and acetic acids, and made to serve as a base for dyestuffs and food colors. (G)

The existence of rotating molecules in solid compounds has an important bearing on the heat capacities of solids. The molecules were discovered by Professor L. Pauling, California Institute of Technology, and Dr. S. B. Hendricks, United States Department of Agriculture. (S)

The discovery of the magnetic susceptibility of samarium sulphate octohydrate by Simon Freed, University of California, indicates the possibility of electronic isomers in the solid state. (S)

“Ekacaesium” is the name of element number eighty-seven which has been reported discovered by Dr. Fred Allison and Professor E. J. Murphy, of Alabama Polytechnic Institute. (P)

VITAMINS AND ULTRA-VIOLET RAYS

Yeast exposed to ultra-violet rays is better than cod-liver oil for increasing the anti-rachitic properties of cow's milk, finds Dr. Harry Steenback, Wisconsin Agricultural Experiment Station. (A)

A 600,000-volt X-ray tube, with rays nearly as strong as those of all the radium in the United States, was constructed by Dr. C. C. Lauritsen, California Institute of Technology. (P)

Vitamins in sufficient amounts will prevent infection of animals, and possibly man, with leprosy, it was reported by Dr. J. Shiga, Korea. (S)

Cottonseed meal which carries the anti-beriberi vitamin B is also the cheapest source of anti-pellagra vitamin G, states Dr. W. W. Skinner, United States Bureau of Chemistry. (G)

A device for measuring the intensity of ultra-violet rays by means of an ultra-violet sensitive photo-electric cell connected with a condenser, which as it discharges operates a counter, was developed in the laboratories of the Westinghouse Lamp Company. (S)

Carotin, the stuff that makes some foods yellow, is important for nutrition because vitamin A is associated with this color in vegetables, butter, and egg yolk. The discovery was made by S. M. Hange and J. F. Frost, of Purdue University. (S)

That animals can manufacture vitamin A in their bodies from carotin was found by Dr. Thomas Moore, Cambridge, England. (S)

Fever produced by short radio waves was found helpful in the treatment of paresis by Professor T. W. Richards, Princeton. (A)

The time required for blood to clot, vitally important in surgical operations, is shortened by feeding the patient vitamin D. (S)

Radio waves are able to weaken materially the poison elaborated by the diphtheria bacillus, announce Drs. W. T. Szymanowski and R. A. Hicks, Western Pennsylvania Hospital. (S)

AGRICULTURE

Acetaldehyde-vapor, harmless to fruit, kills the spores of molds and fungi which cause fruit spoilage, find R. G. Tompkins and S. A. Trout, Cambridge University. (G)

A small amount of iodine added to soil produces a richer and better tobacco according to the United States Department of Agriculture. (G)

Dr. C. F. Swingle, United States Department of Agriculture, brought from Madagascar and propagated a rubber plant which yields pure rubber from cuts, and grows in the driest desert. (G)

Calves isolated from tubercular mothers after their first natural feeding grow up free from tuberculosis according to Drs. Theobald Smith and R. R. Little, Rockefeller Institute for Medical Research. (G)

A poplar tree producing eight thousand pounds of cellulose per acre per year (wild species produce two thousand pounds) was developed by Dr. R. H. McKee and associates. (G)

That the fungus of black stem rust is capable of producing hybrids and thus multiplying the strains which attack wheat was discovered by Dr. J. H. Craigie, Dominion Agricultural Farms, Winnipeg. (S)

A new corn, "Canada Leaming," produced by crossing two strains, survives early frost, matures within one hundred to one hundred and ten days, and gives a bigger commercial yield. The corn was developed by Dr. Donald F. Jones, Connecticut Agricultural Experiment Station. (P)

PHYSICS

A molded compound including silicon carbide or carborundum, which has the quality of preventing the flow of electricity at low voltages while allowing it to pass at high potentials, was developed at the laboratories of the General Electric Company. (S)

Electric current direct from sunlight was made possible through the invention of Dr. B. Lange, of Germany, of a new type of cell containing copper oxide between two layers of metallic copper. (S)

An atom of oxygen was built up by bombarding nitrogen atoms with helium atoms given off by disintegrating thorium. The helium attached itself to the nitrogen atom, this combination becoming fluorine. The fluorine released a fast hydrogen atom and then became an atom of oxygen. (G)

The speed and energy of the protons of hydrogen atoms have been increased so that it may be possible to use them as atomic projectiles for smashing the hearts of other atoms, transmitting them into other substances or releasing enormous quantities of atomic energy. The work was done by Drs. E. O. Lawrence and N. E. Edlefsen, University of California. (S)

ENGINEERING

A substance as hard as stone and stronger than most woods was developed from corn wastes by Iowa State College chemists. (G)

The output of large electrical generators can be increased 25 per cent by running them in an atmosphere of hydrogen according to General Electric Company engineers. (G)

The first rivetless cargo vessel, a twenty-five-hundred-barrel oil tanker, with welded plates, saving 20 per cent in weight and 25 per cent in cost was launched at Charleston, South Carolina. (G)

The world's first floating power plant, the S.S. "Jacona," with a generating capacity of 20,000 kilowatts, was placed in service along the New England coast as a source of emergency power. (A)

An elevated monorailway 30 miles long, carrying a propeller-driven car which travels 120 miles per hour, was completed near Glasgow, Scotland. (S)

Progress in the design of windowless buildings lighted and ventilated entirely by artificial means was made and plans announced for the construction of a \$1,500,000 windowless factory at Fitchburg, Massachusetts. (S)

The first roller-bearing locomotive was built and put in service. (S)

A concrete building material that "rises" like bread weighing only a fraction as much as ordinary concrete has been successfully ap-

plied. A steel mill at Bethlehem, Pennsylvania, has laid floors of it, and it has also been used in a New York building. (P)

Beehives, bathtubs, and garden furniture are now made from the roots of the palmetto tree. By grinding them with cement, C. P. Wilhelm, of Florida, has produced a material as light and tough as wood, impervious to water, as enduring as concrete, and almost unbreakable. It is cheap to manufacture, and the supply of basic material is practically unlimited. (P)

After a third attempt, Professor Georges Claude was successful in obtaining power from the temperature difference in the ocean water at the surface and in the depths of the tropical seas off the Cuban coast. (A)

MACHINES AND MECHANICAL DEVICES

An electric photoflash lamp, a German invention for taking flash-light pictures without smoke or noise, was introduced in the United States. The light is made by aluminum foil ignited electrically in a bulb full of oxygen. (A)

A device for removing carbon monoxide from the exhaust gases of an automobile by means of a catalyst was demonstrated by the inventor Dr. J. C. W. Frazer, Johns Hopkins University. (S)

A self-lubricating bearing made by combining a new lubricant with bearing metal permits light machines to operate without oil. W. C. Wilharm, Westinghouse Laboratories, was the inventor. (P)

In a German automatic train-control a small searchlight on the locomotive throws a beam on a signal-post mirror which reflects the light to photo-electric cells on the engine, producing a visible signal in the cab, and stopping the train if the engineman ignores it. (G)

A film phonograph capable of playing for two hours from a 400-foot reel of motion picture sound film was perfected by Dr. C. H. Hewlett, engineer of the General Electric Company. (A)

AVIATION

A natural gas containing 7 per cent of helium found in Colorado is the richest source of helium yet discovered. (S)

A radio landing beacon enabling planes to land safely in darkness or fog was developed by the United States Bureau of Standards. (S)

An expanding leading edge for airplane wings to prevent the formation of ice was invented by Dr. W. C. Geer, Cornell University. (A)

An automatic pilot keeps an airplane on an even keel in clouds or fog, the pilot merely having to guide right or left with his horizontal rudder. (P)

Another automatic pilot, consisting of two vanes, a second propeller, and a pendulum, enabling an airplane to land without human intervention, was developed by O. W. Greene, Elyria, Ohio. (P)

MISCELLANEOUS

Through the use of rubber tape and bronze powder, Major R. M. Joyce, of the St. Louis Police Department, is able to make records of finger prints left on curved, angular, or reflecting surfaces, or in restricted recesses where photography is impossible. (L)

An ultra-violet ray machine placed behind the counter in a bank enables the teller instantly to detect erasures and different kinds of ink on checks. (P)

Phonograph records are stamped a dozen at a time from fiber paper coated with resin. They are flexible and waterproof and cannot be scratched. The inventor is Dr. H. T. Beans, Columbia University. (P)

Two elevators, an express and a local, are now operated in the same shaft, at a great saving in space. This Westinghouse development has an automatic safety device to prevent collisions.

PRODUCTION

DOROTHY WESCOTT

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ABSTRACT

The year 1930 witnessed sharp reductions in manufacturing and mining activity, from the record high levels attained in 1929, and further decreases in crop output and construction activity. *Agriculture and animal husbandry*.—The severe drought in the summer of 1930 resulted in a considerable reduction in total crop output. Production of live stock and live-stock products was less than in 1929. *Mining*.—Both fuel and metal mining declined considerably, and output of many important minerals was the lowest in several years. *Manufacturing*.—Production in the early months of 1930 rose substantially above the low levels of late 1929; in the second quarter, however, the downward movement was resumed, and for the year as a whole output was considerably less than in any other recent year. *Construction*.—Contracts for building and engineering work in 1930 were 21 per cent less than in 1929, and 33 per cent lower than in 1928, the peak of the post-war expansion in construction activity.

Industrial output, in the early months of 1930, recovered from the low levels reached late in 1929; and production in several important industries for the first three months of the year compared favorably with first-quarter output of other recent years. This improvement was not sustained, however; in the second quarter the decline in activity was resumed, and through the remainder of the year it was practically uninterrupted. The year closed with operations in important branches of industry at the lowest levels since 1921.

The course of industrial output in recent years is shown by the curves on Charts I and II, and by the indexes in Table I. Table I presents the Federal Reserve Board index of industrial production, based on data for both manufacturing and mining industries, and also the indexes of the production of manufactures and of minerals separately. These indexes have not been adjusted for either seasonal variations or long-time growth. On Charts I and II indexes of the volume of manufacture and mining—with the growth element as well as seasonal changes eliminated—are presented.

The shrinkage in construction activity in 1930 was accentuated by the sharp decline in general business activity. Building projects fell to levels comparable to those of 1921, and construction awards were sharply reduced. Among the major classes of construction, the only increase over 1929 was shown by awards for public works and

public utilities. This advance reflected both the lower level of interest rates and the attempt to lessen unemployment by increasing such construction.

Crop output as a whole was considerably smaller than in 1929, although the acreage planted was somewhat greater. The drought of the summer was one of the most severe the country has ever experienced, resulting in yields about 9 per cent under the ten-year average, 1919-28.

TABLE I
ANNUAL INDEXES OF INDUSTRIAL PRODUCTION AND CROP OUTPUT

YEAR	INDUSTRIAL PRODUCTION* (1923-25 AVERAGE = 100)			CROP OUTPUT† (1919 = 100)
	Total	Manufactures	Minerals	
1919	83	84	77	100
1920.	87	87	89	109
1921.	67	67	70	90
1922.	85	87	74	100
1923	101	101	105	101
1924.	95	94	96	99
1925.	104	105	99	102
1926.	108	108	108	104
1927.	106	106	107	104
1928.	111	112	106	108
1929.	119	119	115	102
1930.	97‡	96‡	99‡	95

* Federal Reserve Board unadjusted indexes. Source of data: *Federal Reserve Bulletin*, Feb. 1931, p. 68.

† Harvard Economic Society unadjusted index, based upon fifteen major crops.

‡ Preliminary figure.

AGRICULTURE AND ANIMAL HUSBANDRY¹

The per capita crop production of seventeen principal crops, weighted in proportion to the ten-year average values per unit, was 7.4 per cent less in 1930 than in 1929, and 13.4 per cent less than the average per capita production during the previous ten years.

In Table I is presented an index of crop output, based on fifteen major crops, which shows clearly the sharp drop in total production in 1930. This composite index, however, covers up diverse movements among the different crops. The drought damaged primarily

¹ This section is based principally on *Weekly Letters* of the Harvard Economic Society, Inc., and data published by the United States Department of Agriculture in *Crops and Markets*, Dec., 1930, and Jan., 1931, and *The Agricultural Situation*, Feb. 1, 1931.

the feed crops, hay and corn, though the vegetable crops and tobacco also suffered. For cotton the reduction in output was moderate while wheat production exceeded that in 1929. The total acreage for wheat was more than 2,300,000 acres less than in the preceding year, but output increased by 5 per cent. The yield per acre of winter wheat was 9 per cent greater than in 1929, and that of spring wheat, 10 per cent. A marked increase in the yield per acre was also shown by oats, barley, flax, and important fruit crops. Corn, on the other hand, showed a decrease of almost 23 per cent; tame hay declined 15.6 per cent and wild hay 6.5 per cent; buckwheat fell off 13.4 per cent; sweet potatoes, 17.5 per cent; tobacco, 4.2 per cent; and other crops, such as rice, Irish potatoes, and important truck crops, were also lower than in 1929. The decline in the per acre yield of cotton amounted to about 2.7 per cent.

The comparatively favorable showing of the early grain crops arose from the fact that they matured before the drought became severe. In many sections the cotton crop benefited from moderately dry weather, which checked the ravages of the boll weevil. The drought was extremely severe in a territory stretching from Maryland and Virginia westward to Missouri, Arkansas, and Oklahoma, with West Virginia, Kentucky, and Arkansas suffering the most; and it was not much less severe in the Corn Belt states other than Nebraska. The extreme northern states in the Great Plains area, especially Montana, also suffered considerably. On the other hand, crops were exceptionally good in sections such as the Southeast, along the southern coastal plain, in New England, and on the Pacific Coast.

Figures for receipts of the major classes of live stock and live-stock products at primary markets in 1930 show that cattle receipts were approximately 4 per cent lower than in 1929; and receipts of hogs, which were between 7 and 8 per cent below those of 1929, were the smallest since 1926. Sheep receipts, on the other hand, exceeded those in any one of the preceding ten years, and were about 11 per cent above those in 1929. Among dairy and poultry products, butter and poultry receipts were each about 3 per cent less than in the preceding year, while egg receipts rose by practically the same amount.

According to estimates of the Department of Agriculture as of

January 1, 1931, the number of cattle on farms increased in 1930 for the third successive year. As in each of the preceding three years, the increase was greater in dairy cattle than in beef cattle. Sheep numbers also increased, this being the ninth successive yearly advance; since 1922 numbers have risen about 43 per cent. The increase last year was largely in breeding and stock sheep, in contrast to 1929 when the increase was largely in numbers on feed for market. The total number of hogs on farms at the beginning of 1931 showed a decline of about 2 per cent from a year earlier, the number reported being the lowest in five years. The number of horses on farms declined, as in each of the preceding years for more than a decade, the decrease being general over the country. The total number of animal units on farms at the beginning of 1931 was approximately the same as a year earlier, but the total value of live stock had declined more than a billion and a half dollars.

MINING

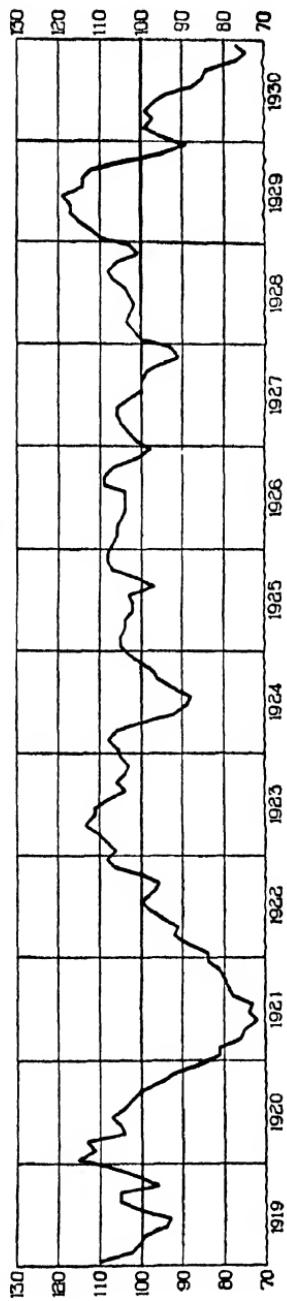
Both fuel and metal mining declined considerably in 1930, and output of many important minerals was the lowest in several years. The sharp decrease last year in mineral output as a whole is shown by the Federal Reserve Board unadjusted index of mineral production, given in Table I, and the Harvard Economic Society index, which is adjusted for long-time growth and seasonal changes, presented on Chart II. The curve on the chart (based on monthly data) reflects clearly certain irregularities, such as strikes in the anthracite and bituminous coal fields, that have occurred in mining activity during the past several years. In the business depression of 1920-21, mineral output declined sharply, but in 1922 labor difficulties in the coal industries carried this index to still lower levels.

Both the index on Chart II and that in Table I reflect the low levels to which mineral output dropped in 1921 and 1922, the sharp increase in 1923, the declines in 1924 and 1925, the higher level of activity in the three years following, the record output attained in 1929, and the decrease in 1930.

Bituminous-coal production last year dropped considerably below the high figure for 1929; the preliminary reports of the Bureau of Mines indicate that output was almost 14 per cent less than a year

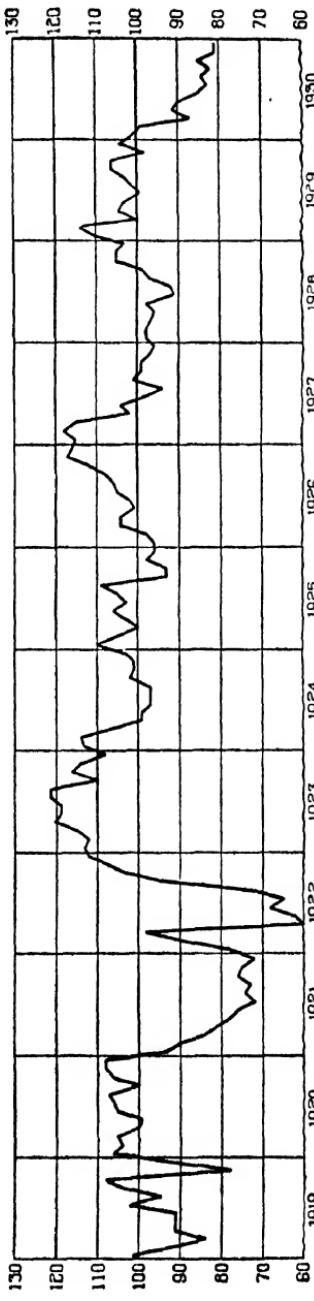
ADJUSTED INDEX OF THE VOLUME OF MANUFACTURE: MONTHLY, 1919-30 (Normal = 100)

NOTE.—Chart from Harvard Economic Society, Inc., by permission



ADJUSTED INDEX OF THE VOLUME OF MINING: MONTHLY, 1919-30 (Normal = 100)

NOTE.—Chart from Harvard Economic Society, Inc., by permission



earlier, and the lowest of any year since 1922. Output of anthracite, primarily a domestic fuel, fell less sharply than bituminous, about 5 per cent under that of 1929. Substitute fuels, hand-to-mouth buying, and disturbed credit conditions contributed to the decrease in anthracite mining.

Petroleum production was curtailed fairly steadily throughout the year, and by December monthly output had fallen to the lowest level since 1926. Annual reports for the petroleum industry, as for coal, are as yet only preliminary, but it appears quite certain that output for the year was somewhat under nine hundred million barrels, compared with more than a billion barrels in 1929.

Metal mining was reduced considerably in 1930, output of all the principal metals falling below that of 1929. Mine production of copper dropped to 690,471 tons, compared with 1,006,203 tons a year earlier, a decline of over 30 per cent. Smelter output also dropped sharply to the lowest figure in several years. Production of refined copper in North and South America fell approximately 20 per cent, but shipments also declined and stocks more than doubled during the year.

Among the other metals slab-zinc output in the United States dropped about 20 per cent below the figure for 1929; refined lead production was 14 per cent less than a year earlier; and silver output fell 17 per cent to the lowest figure in several years. Iron-ore mined last year showed a decrease of about 20 per cent from the total for 1929, and the amount shipped by water and rail is estimated to have fallen approximately 27 per cent. Total shipments from the Lake Superior region were the smallest since 1924.

MANUFACTURING

The decline in manufacturing activity that had begun near the middle of 1929 was interrupted by a substantial increase in the early months of 1930. The improvement, however, proved to be of short duration; in the second quarter activity resumed its downward course, and by the closing months output had fallen to the lowest level in several years, as is shown in Table I and Chart I.

While the severe decline of last year was shared by practically all important manufacturing industries, the most pronounced decreases

occurred (as is probably the rule) in the basic industries and in automobile production. Pig-iron production fell to 31,399,000 tons, the smallest total since 1924 and more than 25 per cent less than in 1929. Early in 1930 pig-iron output recovered from the low levels reached in the closing months of 1929, but this recovery was of short duration. From April through December output fell sharply. Steel-ingot production, like pig iron, improved somewhat in the first quarter of last year, but through the remaining months activity declined almost continuously. For the year as a whole, production was 27 per cent less than in 1929.

Activity in such basic industries as cotton and wool textiles also declined sharply in 1930. Cotton-textile manufacturers in an effort to decrease mill stocks of goods curtailed operations quite steadily until late in the summer; in the last quarter some improvement occurred but production was still held in close agreement with demand. Wool-textile activity declined irregularly throughout the year, and in December operations were considerably lower than in December, 1929. Sole-leather output last year was about 7 per cent greater than in 1929, while production of cattle upper leather declined 12 per cent. Productive activity in the paper industry was approximately 10 per cent below the level of 1929, the greatest decreases occurring in paperboard, wrapping, uncoated book, and newsprint papers. Cement output was about 6 per cent less than in 1929 and the lowest of any year since 1924.

Automobile production in the United States last year fell sharply to the lowest figure since 1922. Comparisons with the record high figures of 1929 show that total output dropped 37 per cent—from a figure of more than 5,358,000 to less than 3,355,000 units. Passenger-car output decreased 39 per cent; truck production, 30 per cent; and taxicab output, 49 per cent.

Returns from the slaughtering industry for 1930 show that the changes from 1929 were mixed. While the number of cattle slaughtered declined, slaughterings of calves increased and total slaughterings of cattle and calves were practically the same as in 1929. Hog slaughterings, on the other hand, were 9 per cent less than a year earlier, and the number of sheep slaughtered rose 19 per cent. Among other important food industries wheat-flour production fell

3 per cent from the 1929 figures and sugar meltings declined about 2 per cent. Boot and shoe production, which had risen to record levels in 1929, fell over 15 per cent in 1930, output for the year being the lowest since 1921. Cigarette production rose to a new high figure, but the increase over 1929 amounted to less than 1 per cent and was the smallest made in any of the last ten years. Output of cigars fell 10 per cent and that of manufactured tobacco and snuff declined about 2 per cent.

CONSTRUCTION

Construction activity, which had fallen sharply in 1929, continued to decrease in 1930. The value of contracts awarded in thirty-seven eastern states, as reported by the F. W. Dodge Corporation, was 21 per cent lower than in 1929; and Bradstreet's building permits—based on a list of about two hundred cities in the United States—showed a decline of 43 per cent. The great post-war expansion in construction activity that culminated in 1928 and the subsequent decline are shown clearly on Chart III. This chart presents bimonthly indexes of the value of contracts awarded (based on the compilations of the F. W. Dodge Corporation) and the value of building permits (based on Bradstreet's figures) adjusted for seasonal variation but not for long-time growth.

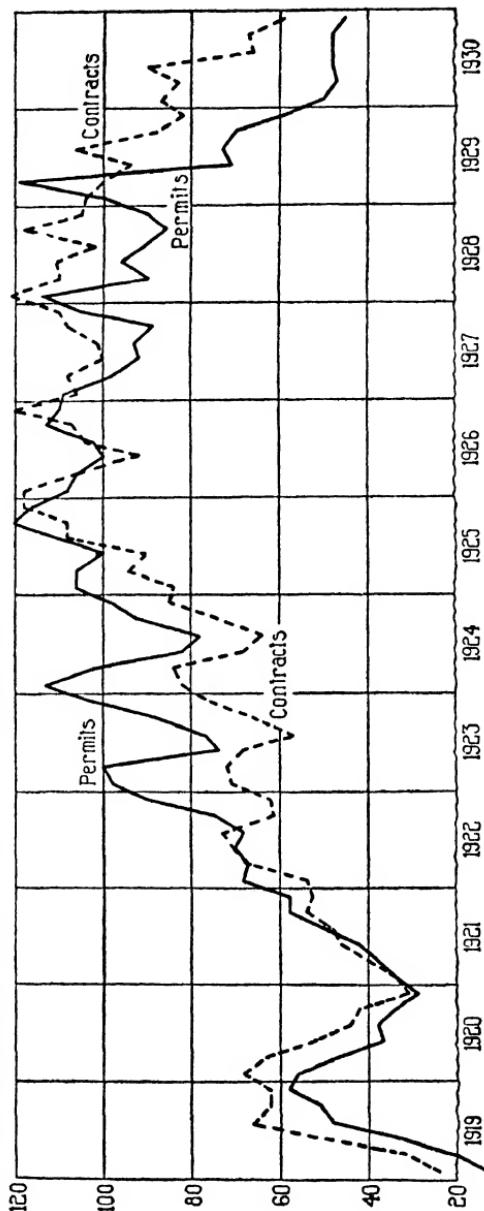
As in 1929, the largest falling-off among the several classes of construction was in residential building; the value of contracts for such construction, after declining 31 per cent in 1929, fell 42 per cent in 1930. The value of contracts for commercial and industrial building decreased 36 per cent; contracts for public and institutional building declined 2 per cent. Awards for public works (including roads and bridges) and public utilities, on the other hand, were 16 per cent in excess of those for 1929. This increase reflects a very large program of public and quasi-public construction carried through during the year, under the stimulus of easy money and the effort to maintain employment by increasing such construction.

New orders for concrete roads and streets last year rose to a figure only slightly under the high level reached in 1928. Reports of the Portland Cement Association indicate that such orders averaged about 4 per cent more per month than in 1929, and between 1 and 2

CHART III
INDEXES OF THE VALUE OF BUILDING PERMITS AND BUILDING CONTRACTS

(Bimonthly Averages Corrected for Seasonal Variation; Average 1924-28 = 100)

NOTE.—Permits index based on Bradstreet's compilations. Basic data for contracts used through courtesy of F. W. Dodge Corporation. Contracts figures for 1919-24 based on 27 northeastern states; for 1925-30, on 37 eastern states. Chart from Harvard Economic Society, Inc., by permission.



per cent less than in 1928. The mileage of federal-aid highways completed was approximately 10 per cent greater than in 1929, and about 4 per cent under the figure for 1928.

SUMMARY

Business activity in 1930 contrasted sharply with that in 1929, the greatest business year since the war. Industrial and farm output were reduced considerably, and by the close of the year activity had fallen to the lowest levels since the business depression of 1920-21. In manufacture, the most severe curtailment occurred in those industries which had expanded so rapidly in the first half of 1929—especially the iron and steel and automobile industries. The fact that the business depression was world wide caused a considerable reduction in foreign as well as domestic demand for goods. In an effort to keep output in close agreement with demand, manufacturers curtailed operations considerably, with the result that stocks of manufactured products in general were reported to be in smaller volume at the end of 1930 than a year earlier. Certain raw-material stocks, on the other hand, expanded greatly, despite the curtailment policies followed by many producers. Agricultural returns for 1930 appear to have been the lowest in several years. The volume of crop and live-stock marketings was considerably under that of 1929; and this decline, together with the drop in prices of farm products that accompanied business depression, resulted in a sharp reduction of farm income. Construction activity decreased steadily during the year, thus continuing the decline in progress since the early months of 1928.

FOREIGN POLICY

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ABSTRACT

Even a brief account of 1930 events in the field of United States foreign relations cannot omit a mention of the international repercussions of the Smoot-Hawley tariff. In the sphere of direct international action there was an increase of American participation in League communications and committee activities, and the United States was represented at the conference for the codification of international law at the Hague; but the three protocols for the adhesion of this country to the World Court still did not come up for consideration by the Senate. The major international event of the year was the London Naval Conference, which resulted in the adoption of a three-power treaty limiting the naval armaments of Great Britain, the United States, and Japan and giving substantial equality to the British and American fleets. The United States also sent a delegation to the November session of the Preparatory Commission for the Disarmament Conference scheduled for 1932. In this hemisphere revolutions in seven Latin-American republics were followed by prompt recognition of the revolutionary governments by the State Department.

Whatever view may be entertained of theories of causation, it is undeniable that many international problems have their roots in national action in the domestic field. Such is the effect of the high protective tariff. Jealously guarded as a subject of domestic jurisdiction, it has immediate international repercussions. The new American tariff (Smoot-Hawley) of June 17, 1930, raised the average *ad valorem* rate or its equivalent to 41 per cent, an increase of 6.86 per cent over the average rate in the Fordney-McCumber act or, on the basis of revenue collected, an increase of 20 per cent. As the large increases and high rates are chiefly on manufactured goods which are produced only in the United States, Europe, and Canada, and the low rates, decreases, or small increases are on raw material or semifinished materials (mainly from tropical or subtropical countries), the effect on European manufacturers is much more harsh than the average rate for all imports indicates. The most injurious effect of the Smoot-Hawley tariff is on the following countries and their exports to us:

Canada.....	Agricultural commodities (cattle, cream)
Cuba.....	Sugar
Argentina and Uruguay.....	Agricultural and animal products (wool, meats, cattle hides)

Australia and New Zealand.....	Wool and cattle hides
Egypt.....	Long-staple cotton
Belgium and Czechoslovakia.....	Earthenware and glass
France.....	Gloves, silk wearing apparel, walnuts
Germany.....	Chemicals, earthenware, glass, china, and porcelain
Italy.....	Olive oil, cheese, straw, and felt hats
Spain.....	Olive oil, almonds, cork manu- factures

One thousand of the leading American economists protested against the tariff proposal in a statement presented to President Hoover, Senator Smoot, and Representative Hawley on May 4, 1930, but the protest exercised no influence and drew no reply. Equally unavailing were the protests of forty-two foreign governments and dependencies, objecting to more than 300 items in the proposed law.

In the sphere of direct international action, first in logic comes the relation of the United States to the League of Nations. In communications with the League and in committee activities there was a noticeable quickening of American participation. The United States continued to transmit its own treaties for inclusion in the League's treaty series, and showed cordiality by offering to forward with its treaty with Ethiopia the special plates necessary for producing the Amharic text of that treaty—a small but significant circumstance.

In two items there was shown a willingness to expand the relation. In June the State Department transferred the assistant chief of its division of Western European affairs to the Geneva consulate, the obvious purpose being to make him the American observer at the League and the representative for continuous informal *liaison*. Equally interesting in its *liaison* aspect was the creation of a committee of three persons to investigate the question of slavery or forced labor in Liberia. The general report of conditions in the Monrovia republic created discussion at Geneva, and on the request of the permanent delegate of Liberia to the League an International Enquiry Commission was created in September, 1929, by *arrangement with the United States*, consisting of a British subject appointed

by the Council, an American appointed by the United States, and a former President of Liberia. The report of the Committee, which drew from the State Department severe animadversions on the conditions existing in Liberia, resulted in conversations in January, 1931, looking toward an international supervision of Liberia, in which the United States would participate, for the institution of adequate slavery and sanitary reforms. This situation underlines the importance of the League convention on slavery, which the United States signed and ratified in 1929.

In 1930 the United States also ratified the multiple convention intended to diminish restrictions on exports and imports which its representatives had signed at the Economic Conference. This participation in international co-operation was balanced by a refusal to share in the organization or operation of the Bank for International Settlements.

Efforts to codify international law on a limited number of topics came to a focus in 1930. Form was given to the project at an assembly meeting of the League in September, 1924, and from 1925 to 1929 a League Committee of Jurists, comprising an American member, was engaged in selecting the topics that would respond to codification. All of those universally approved for consideration were accepted by the United States as suitable for "international arrangements." The general topics of "Nationality," "Territorial Waters," and "Responsibility of States in Respect to Injury Caused in Their Territory to Person or Property of Foreigners" were accordingly presented to a Conference at the Hague in March, 1930, composed of 123 delegates from 48 nations. Preparation for this Conference on the American side was made by a group of American jurists under the aegis of the Harvard Law School.

The achievement of the Conference was minuscular, viz., a protocol relating to "Military Obligations in Certain Cases of Double Nationality" (which was signed by the United States at Geneva on December 31, 1930). For the most part the Conference "developed positions." Some of the delegates came away in a hopeful mood as to the future of codification. The experience produced in others the reflection that the steady weaving of the pattern of international law by specific conventions is surer than the codification of theory,

and less likely also to be thrown off the track by that perpetual obstacle, the equal sovereignty of unequal states.

On February 14, 1930, Judge Charles Evans Hughes resigned from the "World Court" (Permanent Court of International Justice) to become Chief Justice of the Supreme Court of the United States. Former Secretary of State Kellogg was elected to the court, and he took his seat at the opening of the session of October 22, 1930.

On December 10, 1930, President Hoover submitted to the Senate for their consent and approval the three protocols for the adhesion of the United States to the World Court, namely, the original universal protocol which brought the Court into being, the protocol making the amendments to the statute which experience has shown to be desirable, and the protocol containing the Root plan for protecting the position of the United States in connection with the Court's advisory opinions, pursuant to the Senate's fifth reservation of 1924. Under this plan, it will be remembered, a representative of the United States will sit with the Council of the League at the time that the Council considers asking the Court for an advisory opinion, and have the same position in the voting on this question as a member of the Council. If the United States objects to the request for an opinion on the ground that it "has an interest" in the subject, and the Council persists in asking it—a persistence which the realities of the international scheme of things makes highly unlikely—and if it is then determined (presumably by the Court itself) that the asking for an advisory opinion is a matter of League procedure which cannot be blocked by a single vote—unanimity being necessary in all but procedural matters—thereupon the United States may withdraw its adhesion to the Court "without any imputation of unfriendliness or unwillingness to co-operate generally for peace and good will."

On December 17, 1930, the Senate Committee on Foreign Relations voted by 10 to 9 not to consider the question at the short session which ended March 3 and to take it up at the session beginning December 31, 1931.

The major international event of the year was the London Naval Conference. Unlike the sterile Three-Power Conference of 1927, the major political problem involved in the naval situation was faced

and the lines of its solution laid down and consented to before the meeting of the Conference; in order that the solution might not be aborted, politically minded men of high rank—the Secretary of State, two senators, the Secretary of the Navy, Ambassador Morrow—composed the delegation and navy professionalism was subordinated to high policy. The two great fleets are to be substantially equal in the cruiser class, and exactly equal in the smaller craft such as destroyers, submarines, and so on. Substantial equality in cruisers means that the British may have 339,000 cruiser tons, of which 150,000 tons are to mount guns not exceeding 8 inches (presumably 10,000-ton cruisers, and therefore 15 in number) and 189,000 tons are to mount guns not exceeding 6 inches, the British program being to distribute this tonnage over 35 "small" cruisers, which would give them 50 cruisers in all. The United States would have an option for 18 8-inch gun cruisers (180,000 tons) and 142,000 tons in 6-inch cruisers, the combat superiority of the large cruisers being so much greater ton for ton than that of the small cruisers that the American superiority of 30,000 tons in large cruisers would be not more than offset in point of general fighting strength by the British superiority of 47,000 tons in small cruisers—according, at least, to the professional guesswork or expectancy, for the figuring of many complicating factors comes to that and no more.

Japan, whose home waters and access to Chinese raw material sources and markets had been secured by the Washington treaties of 1922, which made it impossible for the United States to attack her west of the 180th parallel, came into the Anglo-American arrangement without friction; she would not accept the Washington 10:6 ratio for all cruisers, but ratios of 10:7 in cruisers and tonnages in the other classes, satisfactory to all three great naval powers, were agreed on for the life of the treaty.

Into this general arrangement the French naval program had not been geared. On December 20, 1929, four weeks before the meeting of the Conference, the French government in a portentous memorandum gave notice to the expectant conferees of French naval "needs"—i.e., protection of the Mediterranean ferry between Marseilles and French Africa, protection of the French Atlantic coast and Channel ports against potential German attack, safeguarding of naval and

war communication with French Indo-China—amounting to 740,000 tons. These "needs" were related of course to Italian naval rivalry. The French would not accept a limitation of their program which would allow the Italians the same figure; the Italians would not accept a limitation below that fixed for the French. The French therefore would not come into a limitation agreement, and their refusal kept out the Italians. A Franco-Italian fleet combination in the Mediterranean being a possibility, however unlikely in fact, the British therefore required the introduction of a clause in the British-American-Japanese agreement by which any one of the three powers may build above its quota on giving notice to the other two.

The treaty signed carries out these arrangements. There is a five-power treaty applying to submarines the etiquette imposed by customary international law on surface vessels halting and searching merchantmen—i.e., there must be no attack without warning, and safety must be provided for passengers and crew before the ship can be sunk. The five powers also agreed to limit the guns and the tonnage of submarines (France being allowed to retain one she has larger than any of the other powers possess), and also not to make before 1936 the battleship replacements allowed by the Washington Treaty, though the French and Italians may still lay down the replacement tonnage which they were allowed to but did not lay down in 1927 and 1929.

Within the framework of the five-power treaty is the three-power treaty of Great Britain, the United States, and Japan for the limitation of their naval armaments, and this contains the so-called "escalator clause."

The consequences of the London Treaty may be far-reaching. The British, before they were obliged to, have surrendered the control of the sea which they have fought for and held virtually since 1588. The United States has agreed not to race for naval supremacy. Non-competition in sea power may well lead to co-operation in measures for keeping the peace, without giving ground for fear by other countries that any sort of world domination may ensue.

In his Armistice Day speech Mr. Hoover renewed his proposal of November 11, 1929, that food-laden ships be immune from seizure in war-time and be allowed to pass blockade. The proposal met with

no more popular enthusiasm or support of international lawyers or other specialists than it had received on its first appearance. There has been no extensive discussion of the merits of the plan, or of the obstacles to its adoption or to its successful operation in war-time and no sign that any other power is likely to take it up.

The London achievement provides for the General Disarmament Conference scheduled for 1932 better auspices than any that have heretofore attended that extraordinarily difficult undertaking. The sixth session of the Preparatory Commission for the Disarmament Conference, whose deliberations have been spinning on a dead center since 1926, opened at Geneva, November 3, 1930. The American delegation came to the conference with hopefulness generated by the London outcome, and exerted themselves constructively as befits a country which sincerely desires the organization of peace but has so often exhibited diffidence about sharing in the responsibilities.

A draft convention was adopted for consideration by the Conference of 1932. On the naval side the convention adopted the principles and formulas agreed on by Great Britain, the United States, and Japan at London, relating to tonnage, exempt and special vessels, replacement, and so on, with the adaptations necessary to give elasticity to small navies; the figures to be filled in for guns and tonnage were left for consideration by the 1932 Conference.

For air armaments the American delegation urged direct limitation of number of machines and total horse power in the three fighting forces. As to civil aviation, articles were adopted that states should refrain from prescribing the embodiment of military features in the construction of civil aviation material, from requiring civil aviation enterprises to employ personnel specially trained for military purposes, and from subsidizing air lines principally established for military purposes.

Toward land disarmament there are two possible approaches: the direct method of limiting guns and all other equipment by enumeration, and the indirect method of budgetary limitation—whether comparatively to the expenditure of other countries, or by comparison with the expenditure of the same country in previous years. The American delegation, though strongly supporting the direct method

which alone the United States would be willing to adopt, proposed that the alternatives be offered for choice by each country, and this proposal was accepted; experts during the interval before the Conference will examine the relations of the two methods to each other and the possibilities under them.

The Convention contains a "safety clause" allowing any country which thinks its national security menaced by a change of circumstance to "suspend temporarily in so far as concerns itself any provision or provisions of the present Convention" provided that it immediately notify the other parties and the Permanent Disarmament Commission and give "a full explanation of the change of circumstances referred to. . . . Thereupon the other High Contracting Parties should promptly advise as to the situation thus presented."

There is also provision for a Permanent Disarmament Commission to be composed of members appointed by certain governments—these governments to be named by the Conference—who would act for all the signatory powers and not as representatives of their respective governments. This Commission would have at its disposal "all the information supplied by the High Contracting Parties to the Secretary General of the League in pursuance of their international obligations," and would each year "make at least one report on the information submitted to it and on any other information that may reach it from a responsible source and that it may consider worth attention showing the situation as regards the fulfilment of the present Convention."

During 1930 the principles of recognition of revolutionary governments by the United States came under consideration. Between March, 1929, and January, 1931, there were revolutions in seven of the so-called Latin American republics, viz., Bolivia, Peru, Argentina, Brazil, Santo Domingo, Panama, and Guatemala. Rejecting the precedent of Wilson's refusal to recognize Huerta's administration in Mexico because he came into power by a military revolution and not by constitutional methods,¹ the State Department promptly

¹ The declaration of President Wilson accompanying the refusal to recognize Huerta made it seem as if this were the inauguration of a new policy, but the absence of other instances leaves this somewhat uncertain. While the statement deprecated govern-

recognized the revolutionary governments in Bolivia, Peru, Argentina, Brazil, Santo Domingo, and Panama. It refused on the other hand to recognize the government of General Orellano in Guatemala in December, 1930; and because neither the United States nor any of the four other Central American republics signatory to the treaty of 1923 recognized him, General Orellano retired from office and constitutional forms were used in filling the presidency.

The policy used in the cases of the South American republics is the classic policy of Jefferson, announcing the right of every nation "to govern itself internally under what forms it pleases, and to change these forms at its own will." The policy applied to Guatemala is that adopted by Secretary Hughes in 1923 as the policy of the United States toward the five Central American governments which had adopted the policy in their relations to each other by treaty of the same year. As the United States had sponsored the making of that treaty, and none of the parties has denounced it, it would seem that the attitude of the United States toward it furnishes none of them with any grievance. In the past the anti-revolutionary policy of the United States has been justified by the nearness of the five treaty republics to the United States as well as to the Panama Canal, the importance of preventing disorder in a region critical to one's own interests—what was once called the "neighbor's burning house" argument. That argument is difficult to reconcile with the criterion of Wilson for not recognizing Huerta in 1913, and with the recognition of the revolutionary Alfaro government in Panama in January, 1930—the one country nearer to the United States than Guatemala and the other marching on both sides of the Canal Zone. Neither policy produces completely satisfactory results in Central America. The United States is reasonably certain to employ the classic rule of recognition, and to underwrite existing governments only in the cases of those countries which by their treaties desire that the anti-revolutionary rule be applied to them.

ments based "upon arbitrary or irregular force" it may well have been thought also that Huerta's régime was not based "upon the public conscience and approval." Possibly Wilson would not have so acted in this or another case had not the two factors co-existed; the second is not so far different from the classic "general acquiescence of its people."

LABOR

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ABSTRACT

The unprecedented decrease in strikes is not entirely attributable to the depression. The general weakening of unions since the war is an important explanation. Unemployment has led labor to stress its demands for the shorter work day and shorter work week, as well as economic planning, public works programs, and so on. There is disagreement in the movement over unemployment insurance, with the possibility that the Federation of Labor will indorse a compulsory plan, although the conservatives would prefer voluntary social insurance through collective bargaining. The communists have resorted to parades and demonstrations in order to popularize their unemployment demands, encountering hostility and persecutions. The depression has led labor to manifest a keener interest in political action, with both the conservatives and radicals gaining thereby. The South was again the pivot for organizational activity, but both conservatives and radicals have encountered obstacles and have made less headway than last year.

STRIKES AND UNION MEMBERSHIP

The economic crisis has automatically shifted the emphasis in labor action. This change was already evident toward the end of 1929. However, as the effects of the depression became more pronounced during 1930 the swing from strikes to less aggressive and non-industrial action became more marked. As a result, there has been a noticeable decrease both in the number of strikes and strikers in the year 1930. The United States Bureau of Labor Statistics reported 903 strikes in which 230,463 workers participated in 1929, whereas for 1930 it records (uncorrected figures) 618 strikes, involving 156,225 strikers. Moreover, none of the strikes involved over 5,000 strikers. But the decrease in industrial disputes is not entirely traceable to the depression. There has been a steady decrease in the number of strikes since 1920, as the previous articles have indicated. Indeed, in view of the extraordinary period of prosperity since 1922, with only a slight interlude of depression in 1924, this steady decline in importance of strikes is unprecedented. President Hoover, in his address before the convention of the American Federation of Labor last October, referred to this extraordinary social phenomenon, using it as evidence that there is a growing harmony between capital and labor. This new development is perhaps better explained by the increasingly intrenched and favorable position of capital, and the

gradual weakening of organized labor. If genuine harmony prevailed between capital and labor then there should have been an increase in union membership during this period. The membership figures indicate the contrary. Since the depression of 1921, and the introduction of "company unions" and welfare work, followed by the aggressive "open shop" campaign of the powerful employers in 1924, the American unions have been losing ground. That the unions have been waning in strength has been indicated in previous articles. Just as industrial conflicts have registered a decline in importance for the first time during a period of prosperity, so union membership has decreased for the first time during a period of prosperity. The 1929 edition of the *Handbook of American Trade-Unions* (Bulletin No. 506), issued by the United States Bureau of Labor Statistics, indicates a loss in union membership of 112,272 from 1926, when the figures stood at 4,443,523, to 1929, when the figures were recorded as 4,331,251. Indeed, even during periods of minor prosperity unions always increased their membership materially. This failure for history to repeat itself is undoubtedly a sign of weakness, and is the primary explanation for the steady reduction in industrial disputes in the past decade.

UNEMPLOYMENT AND LABOR DEMANDS

Already before the depression set in organized labor featured demands growing out of its weakness, out of the "spotty" distribution of prosperity, and out of the hardships caused by "technological unemployment." As the effects of the depression became more pronounced these demands have been more vigorously pressed. Borrowing from certain economists the postulate that prosperity can only be maintained by high purchasing power, the unions used it as an argument to maintain high wages. Now they have reversed the approach by holding that it is necessary to maintain high wages in order to restore prosperity. Similarly, since with the increase of "technological unemployment" the older workers are singled out for retirement, the American Federation of Labor and other unions have indorsed old age pension legislation. Now that the depression is affecting the young and the old alike other demands have come into prominence. Outstanding among these is the demand for the

shorter work day and shorter work week. The railroad brotherhoods were among the first to demand the six-hour day without reduction in pay in order to make work for their unemployed members. The other railroad labor organizations are either asking for the shorter work day or the shorter work week. The metal trades department of the Federation of Labor has even gone on record for the five-hour day and the five-day week. The American Federation of Labor has gone on record for the six-hour day and the universal five-day week, which is the position that most of the unions have taken. The Federation also asks for a guaranteed annual wage and vacations with pay as a means of stabilizing employment. This is indeed a revolutionary departure when it is recalled that the President's Committee on Recent Economic Changes records the average work week as still slightly over 49 hours. Other recommendations for coping with unemployment, as economic planning, public works programs, better and more extensive unemployment exchanges, and special economic studies, have also been indorsed by organized labor.

There is no general agreement in the labor movement with reference to unemployment insurance. The radicals and progressives have always favored a complete social insurance plan in order to assure greater security for the workers. The conservatives, who have dominated the Federation, have, on the other hand, taken a syndicalist attitude, and have opposed all forms of remedial and social reform legislation as either a "dole" or as making the workers the wards of the state. They have contended that the workers should be taught to rely on their unions so that by securing high wages they would be able to save for emergencies and incapacity. With but some 13 per cent of the workers organized into unions; with the average weekly wage at some \$23; and with the tremendous unemployment, their contention is at present being sorely tried. Nevertheless, last summer President Green took occasion to denounce bitterly unemployment insurance. But at the Federation convention last fall a milder attitude was manifested when it was decided to instruct the Executive Council to study the question. In the meantime a number of the powerful unions affiliated with the Federation, and some of its state federations, as well as a few influential unions

outside the Federation have unreservedly indorsed compulsory unemployment insurance.

Even the conservative unions favor what might be termed voluntary unemployment insurance and other forms of insurance instituted through collective bargaining arrangements. In certain industries where unions function plans of this kind have been jointly worked out and are now in operation for some five years. Some of these plans provide for life insurance and old age pensions. Many of the local trade agreements of the street-car workers union and the electrical workers union provide for these forms of insurance. The unions in the garment trades and some other industries have agreements providing for unemployment insurance. Notable among these is the agreement which went into effect August 1, 1930, between the Full Fashioned Hosiery Manufacturers of America and the American Federation of Full Fashioned Hosiery Workers. By the terms of the agreement each member of the Association will contribute to the fund a sum equal to 1 per cent of the weekly wages. The employees will contribute an amount equal to one-half the sum contributed by the members of the Association. In view of the weakened condition of the unions, and considering that the large corporations are generally non-union, these arrangements are likely to affect a small percentage of the American workers.

COMMUNIST DEMONSTRATIONS

The communists have relied primarily on parades and demonstrations as a means of popularizing their unemployment relief measures and remedies. As the effects of the depression accumulated and the unemployment increased the communists also intensified their campaign, which is linked to the international communist campaign. One such international demonstration took place on March 6. In this country the demands featured were, "work or wages, the seven hour, five-day week, against speed up, for social insurance, against wage reductions, against imperialist war, and for defense of the Soviet Union." On May 1, the "International Working Class Day," another series of parades and demonstrations were conducted. Since then, in this country, parades and demonstrations have followed in frequent succession. In many cities the parades and demonstrations

were either prohibited or restricted, with the communists defying the public authorities. These clashes inflamed public opinion. The greater portion of the press assumed a hysterical tone of hostility. In some cities patriotic societies organized counter parades and demonstrations. The flames of antagonism were further kindled by the publicity resulting from the hearings conducted by the Fish Congressional Investigating Committee. Open sessions were held from coast to coast by this committee, with the press generally featuring the testimony of the rabid anti-communist elements. Simultaneously Soviet short selling of wheat, and the charges of dumping and otherwise flooding American markets with commodities produced by convict labor further stirred hostile elements. All these incidents articulated and intensified the antagonism toward the communists, and often toward other labor elements. Thus, the American Civil Liberties Union reports an increase of prosecutions in which civil liberties were involved. Whereas in 1929 it recorded 594 such cases (not including arrests for strike activities), the number rose to 1,788 in 1930. The Civil Liberties Union reports:

This extraordinary rise in attacks on freedom of speech, press and assemblage is due primarily to the widespread unemployment and to the fear of trouble from radicals which always accompanies a depression. In addition, the activities of the Congressional committee investigating Communism aroused sensational publicity and inspired police and prosecutors to act.

The Union estimates that 75 per cent of the civil liberties' cases reported affected communists.

POLITICAL ACTION

This year of depression has seen labor manifest a keener interest in political action than it has since the 1924 LaFollette presidential campaign. Even before the last congressional campaign labor became more than ordinarily involved in politics because of its opposition to the confirmation of the appointment of Judge Parker to the Supreme Court. This designation unloosened a flood of opposition. The Negroes and the Senate progressives were antagonistic to this selection. Labor objected to the appointment because of a drastic "yellow dog contract" decision rendered by Judge Parker sustaining individual contracts between employers and workers in which the

latter agree not to join a union during the period of employment. This combined opposition was undoubtedly favored by the approaching election which influenced many senators coming up for re-election to vote against confirmation. That the rejection by the Senate of the appointment of Judge Parker was only a partial victory for labor is evident from the fact that, notwithstanding the interest in anti-injunction legislation created by the Parker case, it did not succeed in getting favorable action from either house on its anti-injunction legislation.

This preliminary skirmish stimulated the interest of the Federation, and other unions that believe in non-partisan political action, to a more assertive attitude in the last congressional campaign. One of their objects was to punish the senators who came up for re-election, and who favored the appointment of Judge Parker, by defeating them. On the other hand, they exerted themselves to help re-elect those senators who came up for re-election and who opposed the appointment. A number of hostile senators were defeated, and the friendly senators were re-elected. It is, of course, no easy matter to measure the effect of the labor vote under the non-partisan plan. In the last campaign so many other issues were injected to complicate the situation. The election returns recorded a general protest, and the pro-labor candidates stressed the fight against the "public utility" interests, and generally criticized the Hoover administration—issues upon which labor failed to express itself clearly. The progressives, however, credit their victories to the public interest in these issues.

The elements believing in independent political action usually profit from a depression. However, the election occurred a little too early for it to record a pronounced verdict. Nevertheless, the four independent labor parties—Socialist Labor, Communist, Socialist, and Farmer-Labor—made substantial gains. In contrast to the results from the non-partisan policy, the extent to which these elements gained is, of course, easily ascertainable. Although these four parties are credited with proportionately large increases in votes, the votes they received in the previous election were so low that the gains were not sufficient to enable them to elect many of their candidates. Representing the extreme left wings, the Socialist

Labor and Communist parties made the least headway. None of their candidates were elected so that they remain without any official representation. The Socialist and Farmer-Labor parties, representing the moderate radicals, profited the most and increased the number of elected officials belonging to their parties. The Farmer-Labor party registered the most notable victory in the election of its candidates for governor and lieutenant-governor in Minnesota. The state legislators are elected on a non-partisan ballot and there is no record as to what proportion are Farmer-Labor party adherents. Also, the lone Farmer-Labor congressman was re-elected, and some of the other candidates were defeated by small margins. A Farmer-Labor party adherent was also elected county commissioner in Sheridan County, Montana.

In addition to increasing its vote the Socialist party also increased the number of its elected officeholders. Three new Socialist mayors and eight other city officials were elected during 1930. Two Socialists were elected to the state assembly from Reading, Pennsylvania. Nine Socialist assemblymen were elected in Milwaukee, Wisconsin, as against six in the previous election. The two state senators were re-elected, and the Socialist candidate for sheriff of Milwaukee County was also elected. The two congressional candidates were defeated by a close vote. The national executive secretary of the Socialist party reports that "compared with activities of the past six years, 1930 was a year of great advance." He records that 40 per cent of all congressional districts ran Socialist candidates, polling more votes than were cast for their presidential candidate in 1928; that more members were gained than in the years since 1923 together; and that twelve new papers and twelve new mimeographed bulletins were started.

The idea of a new party also came conspicuously into the lime-light, even making the front page of the daily press. This was brought on by the revelations of the Nye Senate investigating committee that high officials of the Republican party had secretly sabotaged Senator Norris' campaign. The matter was aired in the Senate and the executive director of the Republican National Committee attacked Senator Norris, declaring that he did not rightfully belong in the Republican party. Professor John Dewey, as head of the

League for Independent Political Action, then entered the controversy by calling upon Senator Norris to "sever forever your connections with the political machine and form with those of us in the League for Independent Political Action and other liberal groups a new party to which you can give your full allegiance." Senator Norris in declining the invitation declared in an interview "that in a practical sense his advice cannot be followed, at least at this time."

SOUTHERN ORGANIZING CAMPAIGN

Organizationally the South has again held the stage. Since the Federation resolved at its convention in 1929 to wage an intensive organizing campaign south of the Mason and Dixon line, a meeting of the executives of all the unions affiliated authorized the appointment of a special organizing committee. In the past each union had organized "on its own." The new plan called for a co-ordination of effort of all unions striving to lift the entire movement, but emphasis was to be laid on the textile industry as the most important. President Green launched the campaign. The week of January 20, 1930, witnessed the actual opening of the Federation's campaign to organize the South. During the week President Green made six addresses in leading cities of the southeastern states. The organizing committee has been active in various ways, but primarily conducting its campaign on a "no strike" policy, and offering the employers full co-operation in efficiency and production through the Federation's industrial engineer. The employers uniformly ignored the overtures and manifested their uncompromising hostility by blocking the organization campaign through discriminations, evictions, interference with meetings, and so on. Gradually the organizing efforts gravitated toward the Riverside and Dan River Cotton Mills, of Danville, Virginia, where considerable unrest prevailed. The highest skilled workers—the loom fixers—being already organized into a union, invited the Federation to organize all the workers. The merchants and general public seemed sympathetic toward the union, and the public authorities were tolerant. The union conducted meetings and otherwise maintained contact with the workers. When a 10 per cent wage cut was put into effect in February, 1930, the workers began joining the union in large numbers. During this

time the union made efforts at mediation but the management ignored the overtures. At the same time increasing numbers of employees long in the service of the company were being discharged, evidently for taking a prominent part in the union. Later in the summer the company began to increase its force and, according to the union, discriminated against its former workers who belonged to the union, at the same time bringing in new workers from out of town. In line with its policy to avoid a strike the union again sought mediation through state and federal conciliators and through the governor of Virginia. But the mill management persistently responded that there was "nothing to mediate." The union then voted on September 29 to strike, resulting in a virtual shut-down of the mills.

In contrast to the volatile methods used in the communist-led strike in Gastonia last year, the Danville strike was conducted in a quiet and orderly manner. The union outdid itself in avoiding trouble. But gradually as the strike continued the situation grew tense. Several bomb explosions occurred which hurt no one and damaged little property. Arrests also were now made of pickets, and relatively heavy sentences were pronounced by juries. Finally a clash occurred between the strikers and the authorities and the governor sent in the troops. Simultaneously parades and picketing were forbidden. Later carefully restricted picketing was again permitted. The union appeals for aid also failed to net enough to make it possible to feed and clothe the strikers. Many were forced by dire want to return to work. Likewise, with the restriction of picketing strike breakers were secured so that the mills began to operate. All this time the union had been exerting itself to the utmost to secure a settlement. As a result just before Christmas Secretary of Labor Davis called upon the mill management to put the holiday spirit into practice by meeting with the strikers, but his appeal remained unheeded. The union also offered to submit the controversy to "a neutral committee for mediation," but this offer also was ignored. Finally on December 20, President Green journeyed to Danville and at a mass meeting he suggested a means for terminating the strike now entering its fourteenth week. He proposed that all men and women who were employed in the mills at the time of the strike return to work immediately and without discrimination, with the

right to join and remain a member of the union if they wished. Upon their return all disputes between the workers and the mill management should be referred to a board of arbitration composed of two workers and two representatives of the Dan River Mills, the fifth arbitrator to be either Admiral Richard E. Byrd or former Governor Harry Flood Byrd. The management remained adamant. After a few other attempts to secure mediation the strike was called off on January 29, 1931. The strike ended in a cloud of mystery. The leaders announced that they had a "gentlemen's agreement" that union membership would no longer be a reason for discrimination against any workers in the mill. It soon developed that there was a misunderstanding and that no settlement had been arrived at. So far few jobs have been given to ex-strikers, and the workers are in desperate straits relying upon the Red Cross for relief. In general the situation is confused and the first mass organizing campaign for an entire section of the country since the early history of the Federation in the eighties, has encountered a serious snag. Although still encountering opposition in the form of arrests, disruption of meetings, kidnapping, and flogging of leaders, and so on, the communists have been carrying on their activities in the South. In some centers where the persecutions are unusually severe they have been partially operating underground. It is naturally difficult to gauge the extent of their influence, but they have not succeeded in generating the mass activities of last year. Thus, in their efforts to organize the South, both the conservatives and the radicals have so far primarily experienced reverses.

EARNINGS

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ABSTRACT

The economic position of the wage-earner was seriously impaired during 1930. Considerable losses were entailed by unemployment. In addition, the earnings of many employed workers were reduced, mainly through increases in part-time work. Money earnings in manufacturing industries for 1930 were 7.3 per cent below the 1929 level, and declined 10.4 per cent between December, 1929, and December, 1930. Real earnings for these workers decreased 4.8 per cent from the 1929 average. In certain non-manufacturing industries, however, average money earnings rose somewhat above the 1929 level. Money earnings on Class I railroads declined 2.0 per cent from 1929, but real earnings increased 0.9 per cent. Unskilled workers in manufacturing suffered a loss of 9.4 per cent for 1930 in money earnings, and the wages of farm laborers declined 9.7 per cent.

The decline in industrial activity which began during the latter part of 1929 continued throughout 1930. As a result, the economic position of the workingman was seriously impaired in several ways. Unemployment increased sharply during the year; the number of wage-earners unemployed in the United States at the year's close has been variously estimated at from five to seven millions. Part-time work increased in many industries, reducing the earnings of workers who remained on pay-rolls. Numerous cases of wage rate reductions have been reported, although, from such scanty evidence as is available, it seems doubtful whether such reductions have played a major part in weakening the workingman's position. As a partial offset to the unfavorable factors previously mentioned, however, the cost of living declined during 1930, increasing the purchasing power of the wage-earner's dollar.

This article will be confined to a discussion of the earnings of *employed* workers during 1930. It must be constantly borne in mind that the figures here presented do not, by themselves, give a complete picture of the economic situation of the workingman during the year. Their most important weakness in this respect is their failure to take into account the serious influence of unemployment.

For the year 1930 as a whole, the average weekly earnings of wage-earners employed in manufacturing industries decreased 7.3 per cent from the 1929 level, falling from \$27.42 in 1929 to \$25.43

in 1930. Average weekly earnings in the United States during 1930, by months, for all manufacturing industries combined, are given in Table I,¹ together with the relation of these earnings to the average for a normal post-war year, 1926. An increase of 4.1 per cent in February was followed by a smaller increase in March. In this latter month earnings reached their peak for the year, with an average of \$26.97. They declined steadily thereafter, except for slight increases

TABLE I
AVERAGE WEEKLY EARNINGS OF EMPLOYED WAGE-EARNERS
IN MANUFACTURING INDUSTRIES, 1929-30

Year and Month	Average Weekly Earnings	Relative Weekly Earnings (1926 = 100)	Index of Living Costs (1926 = 100)	Relative Real Earnings (1926 = 100)
1929				
Average	\$27.42	103	98	105
1930				
Average	25.43	95	95	100
January	25.71	96	97	99
February	26.76	100	96	104
March	26.97	101	96	105
April	26.91	101	96	105
May	26.74	100	96	104
June	26.25	98	95	103
July	24.79	93	94	99
August	24.44	92	94	98
September	24.67	93	94	99
October	24.51	92	94	98
November	23.69	89	93	96
December	23.75	89	92	97

in September and December. At no time did they reach the average level of 1929.

It is, however, important, not only to show the change from the 1929 average, but also to measure the change experienced during the twelve months of 1930—the change occurring between the beginning and the end of the period we are examining. For this purpose Table II² has been constructed, using the period from December 15, 1929,

¹ The earnings figures there presented include 54 manufacturing industries and cover, on the average, about three million wage-earners. They have been computed from the monthly reports of the U.S. Bureau of Labor Statistics, published in the *Monthly Labor Review* under the heading, "Employment in Selected Manufacturing Industries."

² Figures computed from data secured by the U.S. Bureau of Labor Statistics, and published in *Monthly Labor Review*, February, 1931, p. 156.

TABLE II

AVERAGE WEEKLY EARNINGS OF EMPLOYED WAGE-EARNERS
IN MANUFACTURING INDUSTRIES IN DECEMBER, 1930,
AND DECEMBER, 1929

Industry	Average Weekly Earnings, December, 1930	Average Weekly Earnings, December, 1929	Percentage Change, December, 1929, to December, 1930
All industries.....	\$23.75	\$26.51	-10.4
1. Slaughtering and meat packing.....	26.04	26.12	-0.3
2. Confectionery.....	18.65	19.37	-3.7
3. Ice cream.....	32.46	33.88	-4.2
4. Flour.....	25.91	27.16	-4.6
5. Baking.....	26.54	27.22	-2.5
6. Sugar refining, cane.....	28.71	30.87	-7.0
7. Cotton goods.....	14.70	15.14	-2.9
8. Hosiery and knit goods.....	17.01	20.20	-15.8
9. Silk goods.....	19.38	20.36	-4.8
10. Woolen and worsted goods.....	20.58	21.46	-4.1
11. Carpets and rugs.....	21.32	24.09	-11.5
12. Dyeing and finishing textiles.....	24.15	24.32	-0.7
13. Clothing, men's.....	17.49	22.20	-21.2
14. Shirts and collars.....	13.54	16.18	-16.3
15. Clothing, women's.....	24.04	27.38	-12.2
16. Millinery and lace goods.....	20.15	22.31	-9.7
17. Iron and steel.....	24.89	29.63	-16.0
18. Cast-iron pipe.....	21.51	23.15	-7.1
19. Structural ironwork.....	26.95	30.63	-12.0
20. Foundry and machine-shop products.....	24.75	29.96	-17.4
21. Hardware.....	20.78	25.78	-19.4
22. Machine tools.....	24.57	32.46	-24.3
23. Steam fittings and heating apparatus.....	25.07	27.64	-9.3
24. Stoves.....	22.45	28.06	-20.0
25. Lumber, sawmills.....	17.81	21.23	-16.1
26. Lumber, millwork.....	20.84	23.03	-9.5
27. Furniture.....	19.55	23.27	-16.0
28. Leather.....	23.34	25.26	-7.6
29. Boots and shoes.....	16.50	20.52	-19.6
30. Paper and pulp.....	24.62	27.26	-9.7
31. Paper boxes.....	21.78	23.19	-6.1
32. Printing, book and job.....	33.72	34.37	-1.9
33. Printing, newspaper.....	40.37	40.94	-1.4
34. Chemicals.....	26.90	28.77	-6.5
35. Fertilizers.....	17.94	19.54	-8.2
36. Petroleum refining.....	32.05	32.57	-1.6
37. Cement.....	25.32	29.72	-14.8
38. Brick, tile and terra cotta.....	20.14	23.81	-15.4
39. Pottery.....	22.10	24.69	-10.5
40. Glass.....	23.33	26.36	-11.5
41. Stamped and enameled ware.....	21.39	22.42	-4.6
42. Brass, bronze, and copper products.....	24.06	27.16	-11.4
43. Chewing and smoking tobacco and snuff.....	15.81	16.49	-4.1
44. Cigars and cigarettes.....	16.01	17.52	-8.6

TABLE II—Continued

Industry	Average Weekly Earnings, December, 1930	Average Weekly Earnings, December, 1929	Percentage Change, December, 1929, to December, 1930
45. Automobiles	24.94	28.34	-12.0
46. Carriages and wagons	20.31	20.75	-2.1
47. Car building and repairing, electric-railroad . . .	30.55	32.47	-5.9
48. Car building and repairing, steam-railroad . . .	28.73	32.68	-12.1
49. Agricultural implements	23.09	29.83	-22.6
50. Electrical machinery, apparatus and supplies . . .	27.75	30.87	-10.1
51. Pianos and organs	26.82	30.90	-13.2
52. Rubber boots and shoes	20.30	24.82	-18.2
53. Automobile tires and tubes	25.18	27.43	-8.2
54. Shipbuilding	29.49	30.75	-4.1

to December 15, 1930, as coinciding approximately with the calendar year, and measuring, for each of the 54 manufacturing industries used in the employment and pay-roll indexes of the U.S. Bureau of Labor Statistics the percentage decline in earnings shown by the reports of identical firms.

During the period, average earnings in all industries combined declined 10.4 per cent. Each of the 54 industries shared in the decline, and the losses ranged from 0.3 per cent in slaughtering and meat packing to 24.3 per cent in the machine tool industry. Among the important industries showing heavy declines were agricultural implements, 22.6 per cent; men's clothing, 21.2 per cent; boots and shoes, 19.6 per cent; iron and steel, 16.0 per cent; and automobiles, 12.0 per cent.

Money earnings must be translated into real earnings in considering the economic status of the employed wage-earner during the year. For this purpose, an index of changes in living costs must be employed. The best available cost of living index is that of the U.S. Bureau of Labor Statistics, including reports from 32 cities. As this index is issued only semi-annually, the relatives for intervening months were found by interpolation, using the monthly index of the National Industrial Conference Board,³ and the resulting index was expressed in terms of a 1926 base. The relatives are presented in Table I.

³ The method used in interpolation is that used by Professor P. H. Douglas in his book, *Real Wages in the United States, 1896-1926*. See pp. 227-29 for explanation.

The cost of living index for the year 1930 as a whole (95) was 5.0 per cent below the 1926 average, and was 3.1 per cent below the average of 98 for 1929. The index declined from 97 in January, 1930, to 92 in December, a reduction of 5.2 per cent.

Dividing the indexes of money earnings by the cost of living relatives, we obtain the index of real earnings for manufacturing, shown in Table I. Although money earnings for 1930 were 5.0 per cent less than for 1926, real earnings remained at the 1926 level. Real earnings, however, declined 4.8 per cent from the average for 1929. Examining the movement of real earnings by months, it is seen that the relative of 99 for January increased abruptly (5.0 per cent) in February, and again, but less sharply, in March. These increases, however, were following by declines of approximately 1.0 per cent in May and in June, and 3.9 per cent in July. In July the index again fell below the 1926 average, where it remained during the rest of the year. The relative of 97 for December, 1930, was 4.9 per cent below the relative of 102 for December, 1929.

Table III⁴ shows the movement of average money earnings, by months, in four states, presenting some interesting comparisons. The rather considerable difference in earnings reported is due in part to differences in wage rates, in part to differences in the size and constitution of the samples, and in part to variations in the amount of part-time work. The decline in average earnings for the year as a whole was somewhat sharper in the western states than in the eastern—10.0 per cent in Wisconsin and 5.3 per cent in Illinois, as compared with 4.2 per cent in Pennsylvania⁵ and 3.9 per cent in New York.

The movements of average money earnings in 1930 for seven non-manufacturing groups of industries are shown in Table IV.⁶ While

⁴ The data presented in this table were secured from the following sources: *Industrial Bulletin* (New York); *Labor and Industry* (Pennsylvania); *Labor Bulletin* (Illinois); *Wisconsin Labor Market* (Wisconsin).

⁵ It seems probable that the decline for Pennsylvania would be somewhat greater, were data for November and December available.

⁶ Figures computed from data secured by the U.S. Bureau of Labor Statistics and presented in the *Monthly Labor Review*. The Bureau began to secure reports for these industries during the latter part of 1928. During 1930, the reports for all seven groups combined covered approximately a million and a half workers.

TABLE III
AVERAGE WEEKLY EARNINGS OF WAGE-EARNERS EMPLOYED
IN MANUFACTURING IN CERTAIN STATES, 1929-30

YEAR AND MONTH	AVERAGE WEEKLY EARNINGS			
	New York	Pennsylvania	Illinois	Wisconsin
1929				
Average.....	\$ 29.99	\$26.93	\$28.67	\$25.92
1930				
Average.....	28.81	*25.79	27.16	23.33
January.....	29.80	26.58	28.30	24.10
February.....	29.46	27.15	29.24	24.84
March.....	29.90	27.26	28.25	25.75
April.....	29.44	27.06	28.49	25.56
May.....	29.10	26.47	28.14	24.79
June.....	28.96	25.49	27.49	23.96
July.....	28.50	24.19	26.27	21.47
August.....	28.59	24.84	26.45	22.21
September.....	28.94	24.42	26.43	22.16
October.....	28.03	24.45	26.42	22.89
November.....	27.42	†	25.31	21.33
December.....	27.52	†	25.08	20.84

* Ten months.

† Data not available.

TABLE IV
AVERAGE WEEKLY EARNINGS OF EMPLOYED WAGE-EARNERS
IN VARIOUS NON-MANUFACTURING INDUSTRIES, 1929-30

Year and Month	Anthracite Coal	Bitumi- nous Coal	Metallifer- ous Mining	Public Utilities	Wholesale Trade	Retail Trade	Hotels*
1929							
Average.....	\$30.85	\$25.00	\$30.12	\$29.56	\$30.19	\$23.80	\$16.88
1930							
Average.....	31.41	21.93	28.13	30.22	31.24	23.87	16.98
January.....	31.89	24.74	29.18	29.93	30.53	24.05	16.91
February.....	35.30	24.93	30.18	29.88	31.02	24.19	17.23
March.....	29.51	21.91	29.99	30.60	31.74	24.14	17.49
April.....	27.78	21.85	29.78	30.31	31.52	23.73	17.14
May.....	32.82	21.64	29.36	30.05	31.55	23.85	17.15
June.....	32.35	21.89	28.92	30.36	32.09	24.39	17.12
July.....	28.56	19.88	26.95	30.34	31.27	24.36	16.84
August.....	30.63	20.45	27.08	29.83	31.01	24.14	16.61
September.....	30.44	21.06	27.05	30.11	31.01	24.26	16.73
October.....	36.89	21.93	26.88	30.22	31.04	24.04	16.80
November.....	31.42	21.65	26.33	29.95	30.83	22.68	16.88
December.....	29.27	21.26	25.86	31.06	31.26	22.58	16.83

* Cash payments only; does not include room, board, or tips.

the average for the year as a whole in the bituminous coal industry declined 12.3 per cent from 1929, and in metalliferous mining 6.6 per cent, the remaining groups rose above the 1929 level. The increase for anthracite coal was 1.8 per cent, for public utilities 2.2 per cent, for wholesale trade 3.5 per cent, for retail trade 0.3 per cent, and for hotels 0.6 per cent. Real earnings, of course, increased by larger percentages.

The following explanation may be offered for these upward trends in earnings during a year of industrial depression. The non-manufacturing groups for which average earnings increased all appear to have been much less severely affected by the depression than was manufacturing.⁷ Furthermore, it appears that in these industries pay-roll totals have, in most instances, suffered less than employment—contrary to the situation in manufacturing.⁸ This indicates that, as compared to manufacturing, smaller percentages of the reductions in industrial activity have been made by means of part-time work, and larger percentages through complete separations from pay-rolls. In consequence, any decreases in average earnings for these groups would be less severe than in manufacturing.⁹

⁷ The percentages of change in employment and pay-roll totals for various industrial groups for the year 1930 as compared with 1929 follow. The telephone and telegraph, power, light and water, and electric railroad groups combined constitute the public-utilities group. Data from *Monthly Labor Review*, February, 1931, pp. 158 and 181.

	Employ- ment	Pay-roll Totals		Employ- ment	Pay-roll Totals
Manufacturing	-14.2	-20.0	Power, light and water	+3.0	+4.3
Anthracite coal	-6.6	-4.7	Electric railroads	-6.6	-6.5
Bituminous coal	-6.6	-18.7	Wholesale trade	-4.0	-4.1
Metalliferous mining	-16.8	-22.0	Retail trade	-4.1	-3.8
Telephone and telegraph	-2.1	+2.9	Hotels	-0.8	-1.5

⁸ The exceptions are wholesale trade, for which decreases in employment and pay-rolls differed by only one-tenth of one point, and hotels, for which both employment and pay-roll decreases were very small and hence would have a relatively small influence on earnings. See preceding note.

⁹ Some of these non-manufacturing groups employ a larger proportion of sales and clerical employees than does the manufacturing group. If these employees are less subject to lay-off or part-time work than factory workers, such non-manufacturing groups would tend to show smaller employment decreases and a smaller proportion of part-time work than manufacturing. However, no uniform practice is followed among firms in either the manufacturing or non-manufacturing groups regarding the inclusion in

It seems unlikely that the increases in average earnings were due, to any appreciable extent, to wage-rate increases. The increases seem to have been due, at least in part, to a general tendency in times of depression to lay off workers of less than average efficiency, whose earnings also tend to be below the average. This tends to raise average earnings for the group, even though the remaining workers receive no more than before. There may also be a tendency to lay off

TABLE V
AVERAGE MONTHLY EARNINGS OF EMPLOYEES ON
CLASS I RAILROADS, 1929-30*

Year and Month	Average Monthly Earnings	Relative Monthly Earnings (1926 = 100)	Index of Living Costs (1926 = 100)	Relative Real Earnings (1926 = 100)
1929				
Average.....	\$141.97	105	98	107
1930				
Average†.....	139.19	103	95	108
January.....	145.85	108	97	111
February‡.....	134.31	99	96	103
March.....	143.16	106	96	110
April†.....	139.94	104	96	108
May.....	139.83	103	96	107
June‡.....	135.74	100	95	105
July.....	138.55	103	94	110
August.....	138.75	103	94	110
September†.....	136.66	101	94	107
October.....	143.23	106	94	113
November‡.....	135.07	100	93	108

* Excluding executives, officials, and staff assistants.

† Average for 1930 includes only 11 months, as December data were not available.

‡ Decline in earnings during these months seems to have been due, at least in part, to the fewer days in the months.

a larger proportion of workers in the lower-paid (less skilled) occupations than in the higher-paid (more skilled) occupations. This, likewise, would tend to increase average earnings for the group as a whole.

Table V¹⁰ presents the average monthly earnings of employees on Class I railroads, together with their relative money earnings com-

reports to the U.S. Bureau of Labor Statistics of sales and clerical forces, hence no definite conclusions can be drawn concerning the actual influence exerted upon employment or part-time work by these forces.

¹⁰ Computed from Interstate Commerce Commission data, as presented in the *Monthly Labor Review*.

pared to the 1926 average, and their relative real earnings compared to 1926. Although money earnings for 1930 declined 2.0 per cent from 1929, real earnings actually increased by 0.9 per cent, and were, for the year, 8.0 per cent above the 1926 level.

A shrinkage of 9.4 per cent for 1930 is shown in the average weekly earnings of unskilled male laborers in manufacturing establishments. These earnings, by months, are shown in Table VI.¹¹

TABLE VI
AVERAGE WEEKLY EARNINGS OF UNSKILLED
MALE LABORERS EMPLOYED IN MANU-
FACTURING INDUSTRIES, 1929-30

Year and Month	Average Weekly Earnings
1929	
Average.....	\$25.37
1930	
Average.....	22.98
January.....	24.31
February.....	24.59
March.....	24.14
April.....	24.41
May.....	23.84
June.....	23.13
July.....	22.26
August.....	22.30
September.....	21.93
October.....	21.98
November.....	21.29
December.....	21.58

Quarterly reports on the wages of farm laborers are issued by the Department of Agriculture for four classes of labor: (1) monthly workers without board, (2) monthly workers with board, (3) day workers without board, and (4) day workers with board. The difficulty of estimating the monetary value of the board received makes it advisable to consider only those who received their wages entirely in cash. Combining the wages of classes (1) and (3), we secure the

¹¹ Data secured from *Service Letter on Industrial Relations*, issued by the National Industrial Conference Board.

data presented in Table VII.¹² The reduction from the 1929 level was 9.7 per cent. Although it is difficult to estimate the movement

TABLE VII
AVERAGE MONTHLY WAGES OF EMPLOYED
FARM LABORERS, 1929-30

Year and Month	Average Monthly Wages
1929	
Average.....	\$49.30
1930	
Average.....	44.50
April.....	46.85
July.....	46.18
October.....	43.58
January, 1931	38.38

of living costs in rural areas, it seems probable that the real wages of these farm laborers also declined during the year.

¹² Data secured from *Crops and Markets*. The earnings of day workers were reduced to a monthly basis by multiplying by 20, the average number of days per month worked on farms as estimated by the Department of Agriculture. The wages of day workers and monthly workers were combined, giving them weights of 4 and 6, respectively, according to the estimates of the Department of Agriculture of the number of each type of workers employed on farms. A weighted yearly average was computed from the quarterly averages.

EMPLOYMENT, UNEMPLOYMENT, AND INCOME OF LABOR IN THE UNITED STATES

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ABSTRACT

The moot question of unemployment volume. Special estimates; and the 1930 *Census of Unemployment*.

Employment averages, 1930 versus 1929, in various lines of activity. Some "white-collar" employments: insurance companies; banks and other financial houses; hospitals; retail and wholesale trade; hotels, etc. Some "overalls" employments: factories, railroads, mines, oil wells, etc.

Monthly fluctuations during 1930, for factory workers; for railroad workers; for other employments.

Farm employment. New projects: building construction employment; road construction and maintenance. President Hoover's committee on employment statistics.

Everyone knows that employment conditions in 1930 were subnormal for most lines of activity; otherwise, unemployment would not have "made the front page" of newspapers in this and other industrial countries so strikingly as it did in 1930. But few seem to have in their minds a calm, judicial, and quantitative picture of the extent to which 1930 as a whole was subnormal, nor of the extent to which conditions varied within the year. Broadly speaking, it was a poor year—more particularly in the latter half; but there is no point in believing it worse than it really was, or for considering it indiscriminately bad in all lines of employment—as many persons apparently do. As usual, depression exaggerated pessimism during 1930, just as prosperity usually exaggerates optimism, in the public mind. Just what employment and unemployment data for 1930 can we then depend upon, in order to draw a fair picture?

UNEMPLOYMENT VOLUME

At the outset, we will reiterate what we have in effect stated in every earlier issue of this symposium on social changes: namely, that the volume of unemployment is still one of those variables which cannot be measured with substantial accuracy, even though further progress in that direction was discernible during 1930, as in some other recent years. Space limitations prevent us from here going into an analysis of the various national unemployment esti-

mates¹ made during 1930; but we are inclined to believe that Dr. J. Frederic Dewhurst,² a competent and experienced investigator in this field, did the most notable work of the year, reaching (by two independent methods) estimates lying within the range from 4.5 to 5 millions unemployed as of December, 1930. We do not, however, subscribe to that figure—nor indeed to any other; for, in any problem of estimation where so many constituents are not definitely ascertainable, and must be settled by conjectural assumptions, there would seem to be so large a probable error as to render futile much of the current controversy as to how much unemployment actually prevails at any given time in this country. On this particular problem, we are “agnostic.”

Even the *April 1930 Census of Unemployment*,³ which most observers take as a point of departure for such estimates, is open to question. As we stated in closing our discussion a year ago:⁴

It is impossible to appraise on a priori grounds the merits or demerits of the unemployment census itself. Few if any unemployment authorities are entirely satisfied with the schedule and procedure involved; it represents rather a compromise between what would seem desirable or even necessary to secure adequate definition of terms, etc., and what is considered expedient in census practice. Even though every measure that seemed practicable to the census authorities has been taken to define the terms in such a way as to get a genuine measure of unemployment in the economic sense, the careful observer will do well to cherish no very sanguine hopes in regard to the acceptability of the findings until they are issued and critically reviewed.

Subsequent developments have in large measure justified that note of caution. Some of the objections which have been raised in certain quarters do not seem entirely sound; but there is little question that, until the findings from that census (and also from the re-canvass made for twenty cities in January, 1931) are available in much more complete detail than at present (March 24, 1931), the

¹ For the same reason, we omit this time all citation of local unemployment surveys—which in 1930 were especially numerous, and variegated in scope, definition, method of sampling, and the like.

² Now of U.S. Department of Commerce. For the estimate cited, see *United States Daily*, January 26, 1931; and for the estimate as of January, 1931 (6,000,000 plus) see the issue of March 21, 1931.

³ The *Fourth Federal Census of Unemployment*—others having been taken in 1890, 1900, and 1910, although the one last-named was never published.

⁴ *American Journal of Sociology*, May, 1930, p. 964.

time will not be ripe for any critique that can be called conclusive. Indeed, it may perhaps be impossible to do so even then, in really final fashion, because the extreme paucity of really pertinent data from other sources will limit any critique primarily to the internal evidence in the census itself. But, at least, we must await such further detail—to take one illustration only—as that on the distribution of totally jobless and those on lay-off, classified by occupational and industrial groups, with unemployment rates based on total exposure in the several groups, before attempting any thorough analysis and appraisal.

Conservative students of the unemployment problem have usually held that, under existing institutions, no satisfactory estimate of unemployment volume could be made in this country, unless by census methods; but that of course does not mean that even a census will necessarily succeed in accomplishing the purpose. No census on any subject ever yields a fully accurate and dependable count, even if the unit counted is susceptible to fairly ready definition and easily comprehensible to the intelligence of the average census enumerator. But no definition of economic unemployment can be completely sound and at the same time completely simple; and even if it be fully understood by all the enumerators, there is question whether their results could be considered entirely trustworthy. The customary "piecework" basis was used for remuneration; but who can say whether the two cents paid per unemployed person recorded (as compared with four cents per name on the family schedule) is just the rate which would guarantee careful and complete counting, and yet eliminate the incentive to make spurious returns?

SOME "WHITE-COLLAR" EMPLOYMENTS

Turning then to the more dependable figures on employment, it is illuminating first to consider what happened during 1930 in certain "white-collar" employments. On these classes, data have heretofore been notoriously scant, and even now they are very incomplete; but some new, special tabulations which bear upon this part of the problem are available for 1930, and may well be considered before proceeding to the routine data collected regularly by government organizations.

Such a special tabulation was made early in the year by the Association of Life Insurance Presidents, showing how the number of employees of all its sixty United States member companies stood on December 31, 1930, as compared with October 31, 1929. During this fourteen-month span, the total number of employees in the sixty companies was found to have risen by 3.6 per cent—i.e., from 260,938 to 270,209. The agency or selling forces expanded by 3.3 per cent, and the office forces by 4.4 per cent. No data were collected on the amounts disbursed in pay-rolls by these companies.

In an effort to blaze trails in the same general direction of "white-collar" employment records, the Metropolitan Life Insurance Company made a special canvass of certain other "white-collar" employments, comparing the 1930 average with the 1929 average, and January, 1931, with January, 1930, for both employees and amount of pay-roll. The following classes of employers were sampled; and the preliminary results show, for five of the six classes, a gain in both employment and pay-roll between 1929 and 1930. Only the advertising agencies experienced a reduction at that time, although three additional classes came to show some reduction in January, 1931, compared with January, 1930:

CLASS OF EMPLOYER	PERCENTAGE CHANGE FROM			
	1929 AVERAGE TO 1930 AVERAGE		JANUARY, 1930, TO JANUARY, 1931	
	Employment	Pay-rolls	Employment	Pay-rolls
Fire, marine, and casualty insurance companies.....	+0.4	+2.4	-2.5	-0.4
Savings banks	+4.7	+7.2	+5.3	+7.3
Commercial banks, trust companies, etc.....	+0.8	+2.3	-4.6	-2.5
Investment banking houses, etc.	+1.4	+0.8	-12.6	-10.1
Advertising and market-research agencies.....	-3.3	-0.9	-4.7	-0.7
Hospitals.....	+2.3	+0.5	+0.6	+2.5

Certain other "white-collar" employments are available as a matter of regular routine, through the tabulations of the Federal Bureau of Labor Statistics. A year ago, we were glad to report the extent to which the Bureau had then progressed in its efforts to pool the employment records for various non-factory lines. In 1930 the

Bureau was able to effect further expansion, new lines being added, and the samples expanded in lines of employment previously added. Nearly 800 establishments⁵ now report for three groups not recorded at all a year ago—crude petroleum producing, laundries, and the dyeing and cleaning industry; but in the old lines (exclusive of manu-

TABLE I
SIZE OF NON-MANUFACTURING SAMPLES REPORTING TO THE UNITED
STATES BUREAU OF LABOR STATISTICS ON EMPLOYMENT AND
PAY-ROLL CHANGES, NOVEMBER-DECEMBER, 1930

(Compared with Number of Establishments, November-December, 1929)

LINE OF ACTIVITY	1929 STATUS	1930 STATUS		
	Number of Establishments*	Number of Establishments*	Number of Employees	Pay-roll per Week
Coal mining	1,378	1,493	353,269	\$ 8,581,268
Anthracite	162	159	133,745	3,915,275
Bituminous	1,216	1,334	219,524	4,665,993
Metalliferous mining	346	339	45,712	1,182,275
Quarrying and non-metallic mining	655	756	29,641	666,169
Crude petroleum		534	28,128	1,049,454
Public utilities	9,463	12,013	726,229	22,559,705
Telephone and Telegraph		7,934	324,014	9,730,635
Power, Light, Water		3,601	252,232	8,122,113
Electric Railroads†		478	149,983	4,707,017
Trade	8,102	9,759	411,969	9,851,472
Wholesale	1,778	1,960	63,350	1,980,307
Retail	6,324	7,799	348,619	7,871,165
Hotels†	1,784	2,018	145,976	2,441,910
Canning and preserving	457	969	36,698	610,916
Laundries		183	17,931	353,482
Dyeing and cleaning		69	2,680	64,059
Total	22,185	28,133	1,797,333	\$47,360,770

* "Establishment" is so defined by the Bureau as to count all separately reported units of a common employer—e.g., all reported exchanges of a given telephone company, and all reported power-plants of a power company.

† Exclusive of electric car repair shops.

‡ Hotel pay-rolls include cash payments only.

facture) about 5,000 establishments were added in 1930, bringing the non-factory total from about 22,000 to about 27,000 establishments;⁵ also, the number of reporting factories has risen from about 12,250 to about 14,000.⁶ A convenient summary of the improvement in representativeness of non-manufacturing groups is afforded by the first two columns of figures in Table I.

⁵ For definition of "establishment," see footnote (*) of Table I.

⁶ Representing 63 branches of manufacture, as against 56 a year before.

Chief among the "white-collar" employments now included in the federal bureau's list are retail and wholesale trade, although in large part the telephone and telegraph group, and perhaps even hotels, may be considered to belong in that same general category. Three of these four show a smaller monthly average for 1930 than for 1929 in both employment and amount of pay-rolls, although the reductions were in no case substantial; the telephone and telegraph companies reported employment a trifle lower and pay-rolls a trifle higher—i.e., by 2 or 3 per cent—in 1930 than in 1929. The reason why 1930 employment and pay-rolls in these so-called "white-collar" lines compare so favorably with 1929 is that decline below the corresponding monthly levels of the earlier year did not really set in until the latter half of 1930. This is in marked contrast to what happened to "overalls" workers' employment, which was affected by the depression much earlier. Also, the range of fluctuation is much narrower in the "white-collar" employments, with the exception of retail trade over the year-end. In wholesale trade, hotels, and telephone and telegraph companies, the 1930 levels noticeably exceeded 1929 until spring at least; indeed, in the last-mentioned group, the amount of pay-roll held this lead into the autumn, although by a narrowing margin as the year advanced.

As far as month-to-month employment and pay-roll fluctuations during 1930 are concerned, it can be said that in retail trade and hotels they exhibited the seasonal characteristics that one would expect in these pursuits. Retail trade showed its characteristic summer lull, and then its fall expansion culminating in the holiday peak. Hotels experienced the typical winter and summer quickenings of activity. In wholesale trade, the volume of employment declined more or less steadily from month to month throughout the year; for telephone and telegraph companies, employment and pay-rolls were fairly stable in the first half-year, but began to ebb during the second half.

How the year 1930 as a whole appears in comparison with the year 1929 as a whole, is shown for various classes of "white-collar" and "overalls" workers by Table II, and in more detail by Table IV appended to this article.

SUMMARY FOR CERTAIN "OVERALLS" EMPLOYMENTS

For those "overalls" employments on which satisfactory data are available, the 1930 story is a darker one than for "white-collar" workers, but it must be borne in mind that many of the basic production industries are generally among the most sensitive to cyclical ups and downs, and as usual suffered rather drastic curtailments during the depression of 1930. Mining and allied lines were particularly hard

TABLE II
EMPLOYMENT AND MONEY INCOME OF CERTAIN
CLASSES OF LABOR IN 1930
(Base: 1929 Monthly Average = 100 per Cent)

Line of Activity	Employ- ment	Money Income
Factories.....	86.7	81.2
Steam railroads	89.6	88.1
Bituminous coal mines.....	93.4	81.3
Anthracite mines.....	93.4	95.3
Metal mines.....	83.2	78.0
Quarries and non-metallic mines	84.3	79.3
Crude petroleum producing.....	87.4	85.9
Telephone and telegraph com- panies.....	97.9	102.9
Power, light, and water companies	103.0	104.3
Electric railroads, excluding car re- pair shops.....	93.4	93.5
Wholesale trade.....	96.0	95.9
Retail trade.....	95.9	96.2
Hotels.....	99.2	98.5

hit last year; Table II shows that the money income of bituminous coal miners, metal miners, and workers in quarries and non-metallic mines, averaged about 20 per cent smaller than in 1929. Pay-roll disbursements to crude petroleum employees totaled 14 per cent less in 1930 than in the preceding year; anthracite miners' income dropped, on the average, only 5 per cent; but it must be remembered that 1929 itself had been a poor year for that group of workers.

Power, light, and water companies' employment and pay-rolls averaged 3 or 4 per cent higher last year than in 1929; for electric railroads (exclusive of car repair shops) a shrinkage of 6 or 7 per cent is recorded. The effect of this depression on the employment

and income of factory workers and steam-railroad operatives will be discussed more fully in individual sections later in this article.

For nearly every one of these "overalls" groups it can be said that 1930 employment declined from the beginning of the year, and during practically every month was lower than in the corresponding month of 1929. Power, light, and water companies were an exceptional group, in that each month of 1930 exceeded the corresponding month of 1929 until autumn, and even after that date remained about on a par until the end of the year, accounting for the favorable comparison noted above for the yearly averages.

The actual month-to-month changes in employment and payrolls in the several industries just discussed were highly varied. Coal mining went through its summer lull and autumn expansion, while quarries and non-metallic mines were most active during the summer, as is usual for the season. Metal-mining employment suffered repeated decreases throughout the year; this was true also of crude petroleum and electric-railroad employment, but the rates of decline were here less rapid. In power, light, and water companies, there was expanding employment in the first half-year and an easing-off during the second half.

FACTORY WORKERS

The year 1930 opened with a rather striking anomaly between the behavior of factory employment and that of factory production. The latter registered in January a rather strong recovery of about 5 per cent—apparently a very definite reversal of the sharp and successive declines from the peaks of about mid-1929. That upswing was followed by a further though less substantial one in February; both were especially remarkable, appearing in the face of continued declines of the wholesale price level. The best composites for physical production of manufactures registered (after elimination of long-time growth and seasonal fluctuations) a January, 1930, average of about 94 per cent of normal, and in February about 97, as compared with a low of 88 or 90 in December, 1929.

But this very definite "bulge" in factory production is seen to have been only faintly reflected in the course of factory employment and pay-rolls, after seasonal variation is eliminated therefrom. True, there was quite a noticeable tendency for actual amount of pay-roll

to rise during those months, as may be seen by the dotted line on the first of the two companion charts shown herewith; but it may readily be seen that the index for number on pay-roll (full line) showed at best only a hesitant or nearly horizontal tendency at that time, before resuming its down-swing. And when we study the course of these two indexes after elimination of seasonal factors, it is quite clear that there was only a slight and momentary halting of the downward cyclical course in both employment and pay-roll disbursements. These two corrected indexes, shown on the second companion chart, began the year 1930 at points 95 and 98 per cent of their respective 1923-25 averages, and ended the year at about 79 and 73. The December, 1930, levels of both employment and pay-rolls were substantially on a par with their respective lows of 1921.⁷

Because of the Federal Reserve Board's adjustment of the monthly indexes to the *Biennial Censuses of Manufactures* (through that of 1927 only, thus far), it is possible to translate these indexes into terms of actual numbers of persons and actual dollars of income. In round figures, the number of wage-earners on factory pay-rolls at mid-December, 1930, was 6,600,000, as compared with 7,800,000 in January, 1930, and 8,900,000 at the peak month of September, 1929. Because of part-timing, and a certain amount of wage-cutting, the volume of income received by factory employees was more sharply reduced, being at the rate of about \$650,000,000 per month in December as compared with \$840,000,000 in January, 1930, and \$990,000,000 at the peak month of September, 1929. The percentage declines between the 1929 average and the 1930 average were 13.3 per cent and 18.8 per cent respectively. The decline of 34 per cent in the dollar value of incomes between the September, 1929, peak and December, 1930, was partly mitigated by an increase of about 7 per cent in the retail value of the consumer's dollar—including rents, foods, clothing, etc.

Figures showing the recent course of both composites are recapitulated in Table III; and Table V appended to this article shows the movements for major groups of manufacturing industries.

⁷ After the close of 1930 both curves dipped further.

The set of factory labor-turnover indexes originally constructed by the Metropolitan Life Insurance Company were continued during 1930 by the U.S. Bureau of Labor Statistics. The 1930 turnover

CHART I

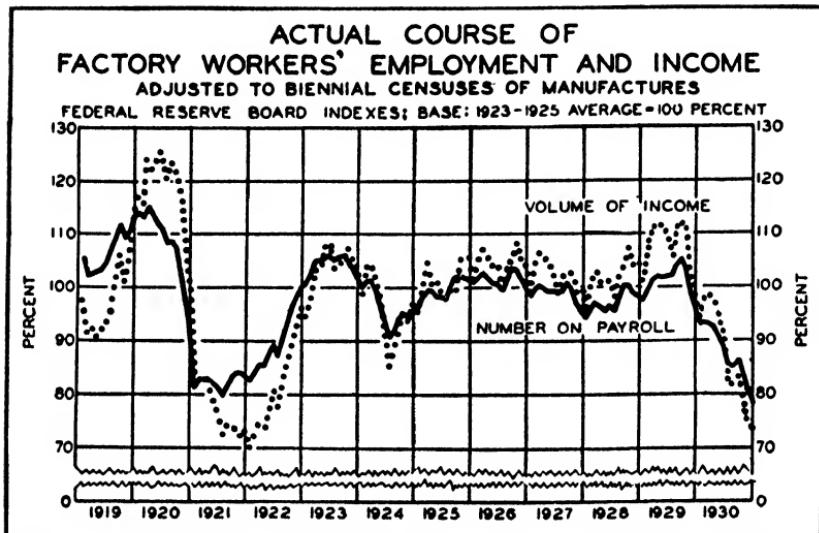
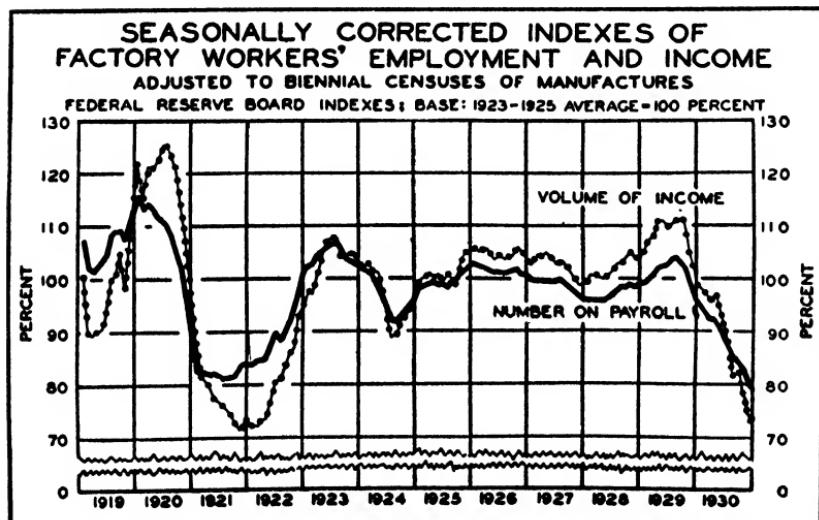


CHART II



situation, as recorded in the *Monthly Labor Review*, substantially confirms the findings drawn from employment indexes themselves.

TABLE III

RECENT COURSE OF GENERAL FACTORY EMPLOYMENT AND PAY-ROLLS IN THE UNITED STATES*

(Base: 1923-25 Monthly Average = 100 per Cent)

MONTHLY AVERAGE FOR YEAR

	Index of Number on Pay-rolls	Index of Amount of Pay-rolls
1919.....	106.6	98.1
1920.....	107.9	118.1
1921.....	82.4	76.8
1922.....	90.1	81.1
1923.....	104.2	103.4
1924.....	96.2	95.7
1925.....	99.7	100.9
1926.....	101.4	104.3
1927.....	98.8	102.1
1928.....	97.2	101.8
1929.....	101.1	107.7
1930.....	87.7	87.5

MONTHS OF 1930

	INDEX OF NUMBER ON PAY-ROLLS		INDEX OF AMOUNT OF PAY-ROLLS	
	Actual	Seasonally Corrected	Actual	Seasonally Corrected
January.....	93.2	94.8	94.4	98.0
February.....	93.3	93.4	97.7	97.0
March.....	93.1	92.4	98.2	96.0
April.....	92.6	92.3	97.1	96.6
May.....	90.9	91.1	94.5	93.9
June.....	88.8	89.2	90.7	90.7
July.....	85.5	86.9	82.6	86.0
August.....	85.1	85.1	81.7	81.9
September.....	86.4	84.7	83.0	82.4
October.....	84.3	83.1	80.8	78.7
November.....	81.0	80.7	75.1	75.0
December.....	78.8	79.4	73.7	73.3

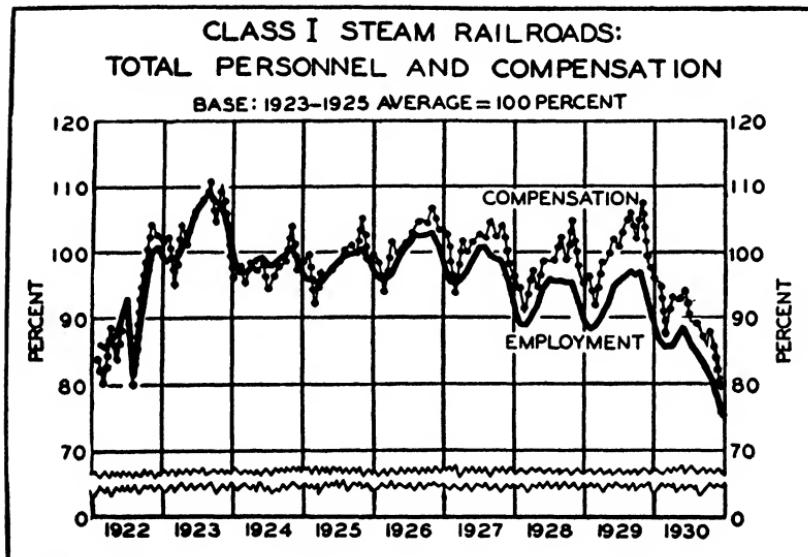
* Latest revision of Federal Reserve Board; adjusted to *Biennial Censuses of Manufactures* through 1927 (*Federal Reserve Bulletin*, XV, No. 11 [November, 1929], 711, and XVI, No. 11, 685). The seasonally corrected data here quoted are those of the Metropolitan Life Insurance Company.

The year was one of higher lay-off rates, and lower hiring, discharge, and voluntary-quit rates, than any other year since the war—with the exception of 1921 in some instances.

RAILROAD WORKERS

As is usual during depressions, railroad employment- and pay-roll-fluctuations resembled those of factories in many respects; thus, the rise in the spring of 1930 was no more than a seasonal one for railroad as for factory workers. It is true, however, that the declines in both indexes were less drastic in the case of railroad workers; it has already been shown that the average level of railroad employ-

CHART III



ment was in 1930 only 10 per cent below the average for 1929, while the amount of pay-roll showed an average shrinkage of about 11 per cent. Between the autumn peak of 1929 and the month of December, 1930, employment fell from about 97 to 75 per cent of its 1923-25 average. These shrinkages were evidently less serious than those previously cited for factory wage-earners. More than half of the railroad shrinkage occurred within the year 1930.

It continues to be quite evident from the full line on the accompanying railroad chart that technological displacement—augmented by problems of competition with bus lines, trucking companies, etc.—has seriously affected railroad employment for several years. Even the busy condition of traffic during 1929 had failed to carry the

employment line up to a peak as high as that in any other recent year, except 1928, and of course 1930.

OTHER LINES OF EMPLOYMENT

For lack of space it is impracticable to enter here into full discussion of the monthly fluctuations in all other lines of employment for which evidence is available. Such monthly data are recapitulated in Table IV at the end of the article, which must suffice as a supplement to the discussion of annual averages in these lines already summarized in an earlier section. But two or three points are worthy of special comment.

Employment declined during 1930 in agriculture, as it did in almost every other line. For the year as a whole, the average number of hired persons per farm was 1.08 as compared with 1.13 in 1929—i.e., a decline of $4\frac{1}{2}$ per cent. This average is computed by the U.S. Bureau of Agricultural Economics from a sample which ranged from 9,800 to about 11,000 farms. These are chiefly the farms of crop reporters, which are generally conceded to be above average, in their ability to withstand depression; consequently, it is probable that aggregate employment in agriculture declined by more than $4\frac{1}{2}$ per cent. It is difficult to estimate how much sharper the decline really was, but the estimate of one expert familiar with the problem is that the shrinkage was between $4\frac{1}{2}$ and 10 per cent. Since, according to the same Bureau, the average wage of hired labor declined to about 90 per cent of its 1929 level, it seems likely that the income of farm employees must on the average have shrunk during 1930 to a figure between 80 and 86 per cent of its 1929 aggregate.

For employment in the construction industries, a little further progress was made during 1930 toward securing a dependable record. In addition to the six states⁸ named in our review a year ago as having available a monthly reporting sample, Maryland may now be cited; the first results emanating from this project covering the months of November and December, 1930 were released by the Maryland commissioner of labor and statistics. For technical reasons, we do not yet feel that it is justifiable to combine the records for all or any of these seven states, but a good deal of experimenta-

⁸ These were: Illinois, Wisconsin, Ohio, Pennsylvania, Massachusetts, and Rhode Island.

tion has been carried on since a year ago by the U.S. Bureau of Labor Statistics, which has finally assembled data for both employees and pay-rolls of over 1,000 contractors in three cities—Washington, Providence, and St. Louis—and is publishing the results in the *Monthly Labor Review* during 1931, beginning March. Now that the Bureau's long-standing doubts as to the feasibility of such a project have been allayed by the nature of the results which have materialized, the question whether and at what rate other cities may be added depends largely upon the appropriations available to the Bureau.

During the year under review, New York state also canvassed rather extensively the possibility of compiling construction employment records for the various cities in that state, carrying out one of the several recommendations made during September, 1930, to the industrial commissioner, Miss Frances Perkins, by a special committee; it is understood that about 80 contractors reported in December and more were expected in January, but at this writing (March 24, 1931) none of the results have yet been published.

Since we lack any truly comprehensive national index of construction employment, the index of building trades unemployment constructed by the American Federation of Labor is about the only direct indicator of employment conditions in this important branch of industry. Considering these data, and also the probable lagging influence of building contract awards and permits upon building employment, there seems to be an overwhelming probability that building employment in the United States must have averaged in 1930 at least 15 per cent, and possibly 25 per cent or more, below the average level for 1929.

A related field of activity for which data on employment (but not on amount of pay-roll) are being collected is that of highway construction and maintenance. This project is under the auspices of the U.S. Bureau of Public Roads, which circulates among its district engineers monthly schedules, covering the two branches of employment on all federal-aided and state highways, in all states where adequate co-operation can be secured; the scheme does not cover any county road work. None of the figures resulting from this project have yet been released.

Another important development during 1930 was the appoint-

ment on August 12, by President Hoover and the Secretary of Labor, of an Advisory Committee on Employment Statistics, which with the aid of a group of associated technical advisors has drafted rather extensive recommendations⁹ looking toward further expansion in the

TABLE IV
RECENT COURSE OF NON-FACTORY EMPLOYMENT AND PAY-ROLLS AS
REPORTED BY THE U.S. BUREAU OF LABOR STATISTICS
(Base: 1929 Monthly Average = 100 per Cent)

	EMPLOYMENT IN 1930												Average
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Anthracite mining	102.1	106.9	82.6	84.1	93.8	90.8	91.6	80.2	93.8	99.0	97.2	99.1	93.4
Bituminous coal mining	102.5	102.4	98.6	94.4	90.4	88.4	88.0	89.2	90.5	91.8	92.5	92.5	93.4
Metalliferous mining	95.7	92.3	90.9	89.3	87.5	84.6	80.5	79.0	78.1	77.2	72.8	70.1	83.2
Quarrying and non-metallic mining	79.6	79.8	83.0	87.4	90.8	90.3	89.9	89.3	87.7	84.7	78.3	70.2	84.3
Crude petroleum producing	92.7	90.8	89.3	86.8	89.8	90.2	89.9	87.7	85.0	85.2	83.6	77.4	87.4
Telephone and telegraph	101.6	100.2	99.4	98.0	99.7	99.8	100.0	98.8	96.8	94.5	93.0	91.6	97.9
Power, light and water	99.6	98.8	99.7	100.0	103.4	104.6	105.9	106.4	105.2	104.8	103.4	103.2	103.0
Electric railroads*	97.1	95.1	94.4	95.2	95.2	94.8	95.3	92.0	91.8	91.0	89.3	88.8	93.4
Wholesale trade	100.0	98.5	97.7	97.3	96.8	95.5	96.0	95.0	94.8	94.2	92.6	92.0	96.0
Retail trade	98.9	94.4	93.9	97.3	96.7	93.9	89.0	85.6	82.0	95.5	98.4	115.1	95.9
Hotels	100.4	102.4	102.4	100.1	98.0	98.0	101.3	101.5	100.1	97.5	95.2	93.5	99.2
Canning and preserving	40.1	45.7	49.7	74.8	65.7	83.0	126.3	185.7	246.6	164.7	96.7	61.6	103.9
PAY-ROLLS IN 1930													
Anthracite mining	105.8	121.5	78.5	75.0	98.8	94.3	84.0	78.8	91.6	117.2	98.0	100.0	95.3
Bituminous coal mining	101.4	102.1	86.4	81.7	77.5	75.6	68.9	71.1	74.9	79.4	79.1	77.7	81.3
Metalliferous mining	92.7	92.5	90.8	88.3	85.6	81.6	71.9	71.0	69.9	68.6	63.4	59.9	78.0
Quarrying and non-metallic mining	71.9	73.5	80.0	85.4	90.2	90.9	85.5	85.8	82.5	79.3	66.8	59.9	79.3
Crude petroleum producing	94.0	88.6	91.3	86.6	85.4	87.1	88.5	86.0	84.0	82.6	80.0	77.2	85.9
Telephone and telegraph	105.1	101.9	105.8	103.4	103.2	103.4	106.6	102.5	102.2	100.9	97.9	101.3	102.9
Power, light and water	99.7	100.4	102.1	102.6	104.5	107.8	106.7	106.6	106.1	105.6	103.7	103.6	104.3
Electric railroads*	97.8	95.7	93.4	97.1	96.0	97.9	95.6	92.1	90.5	88.9	87.7	88.6	93.5
Wholesale trade	100.0	98.3	99.7	97.0	97.4	98.6	96.0	93.6	93.6	92.9	91.0	91.3	95.9
Retail trade	99.7	96.0	95.5	97.5	97.3	96.8	91.7	87.6	92.4	95.1	96.8	107.7	96.2
Hotels	100.3	103.8	104.4	100.3	98.4	98.1	99.8	98.6	97.1	95.5	93.6	91.5	98.5
Canning and preserving	50.3	51.5	50.8	72.6	66.9	81.5	112.7	172.0	214.8	140.0	82.9	57.4	96.1

* Exclusive of car shops.

scope, and improvement in the quality, of employment and pay-roll statistics available. Although no action has yet been possible, it seems very likely that the Committee's recommendations will, in 1931 and thereafter, lead to very substantial further advances in our quantitative information on the important problem of economic and social life represented by employment and unemployment changes.

⁹ These recommendations, summarized in the *United States Daily* for February 14, are printed in full in the issues of February 16, 17, and 18, 1931.

TABLE V
RECENT COURSE OF FACTORY EMPLOYMENT AND PAY-ROLLS IN INDUSTRIAL GROUPS*
(Base: 1933-25 Average = 100 per Cent)

INDUSTRIAL GROUP	AVERAGE FOR YEAR												MONTHS OF 1930					
	1926	1927	1928	1929	1930	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Employment																		
Iron and steel and their products	101.3	96.8	95.4	98.9	87.1	91.7	93.5	92.8	93.0	92.7	90.0	86.1	83.6	82.3	81.6	79.8	78.0	
Machinery (excluding transportation equipment)	107.9	100.0	98.7	116.1	97.5	109.9	109.3	108.5	106.9	103.6	100.1	95.2	90.9	89.8	87.4	84.7	83.3	
Textiles and their products	97.9	100.8	98.5	101.6	96.9	92.7	90.2	90.0	86.8	82.2	82.4	80.1	78.1	78.1	78.1	78.1	78.1	
Food products	98.5	100.1	99.1	98.6	99.7	94.7	96.7	94.7	95.0	94.0	94.5	95.6	95.0	92.9	94.7	93.6	92.3	
Paper and printing	103.6	103.1	101.7	104.2	101.1	105.6	104.1	103.7	102.6	102.4	101.5	100.5	100.7	98.6	98.4	98.4	98.4	
Lumber and its products	100.5	92.3	88.1	88.1	69.1	75.8	75.0	75.0	74.2	73.4	71.7	68.2	66.5	64.5	64.3	61.6	58.4	
Transportation equipment	98.3	88.4	90.6	94.6	76.1	83.2	83.9	83.2	84.0	84.0	80.2	74.8	72.1	70.3	67.0	64.9	65.3	
Leather and its manufactures	96.8	97.3	93.5	93.7	85.9	91.4	92.4	91.5	89.8	86.8	84.5	86.6	87.4	86.1	83.1	76.9	74.5	
Cement, clay, and glass products	97.5	97.5	92.3	3	89.6	75.6	74.7	75.3	78.4	81.2	81.7	80.4	75.8	73.2	70.4	66.4	66.4	
Non-ferrous metal products	99.5	97.4	96.0	101.1	78.1	85.6	84.6	84.3	82.9	81.2	80.2	77.7	75.1	72.5	71.6	70.9	70.2	
Chemicals and allied products	108.8	107.9	105.6	102.5	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	101.5	101.4	98.6	97.8	
Rubber products	104.6	104.0	108.6	108.3	82.7	89.7	87.9	88.6	88.3	88.0	88.2	81.0	77.4	75.3	72.6	73.2	73.2	
Tobacco manufactures	90.8	93.6	93.7	91.6	87.4	84.2	83.9	89.6	88.0	89.2	88.2	84.0	87.7	88.0	87.1	84.9	84.9	
Pay-rolls																		
Iron and steel and their products	104.2	98.5	99.0	106.0	84.4	90.5	98.1	97.1	97.7	95.5	90.8	78.6	77.5	75.4	75.8	68.9	66.7	
Machinery (excluding transportation equipment)	104.2	103.5	104.7	125.6	96.7	113.8	115.2	113.3	113.4	108.3	102.7	90.9	85.8	84.2	81.4	75.1	75.0	
Textiles and their products	98.4	100.4	96.4	99.7	89.8	92.9	92.2	94.1	96.6	89.3	82.7	77.8	69.2	73.2	81.2	80.3	73.4	
Food products	101.2	102.4	102.5	104.5	99.0	102.5	101.6	100.6	99.7	100.7	102.3	100.2	97.6	100.8	98.4	96.5	94.9	
Paper and printing	110.4	110.1	109.1	109.1	110.0	114.9	114.9	114.9	115.0	113.5	113.3	111.9	107.1	106.3	105.4	105.0	105.7	
Lumber and its products	102.0	95.1	90.5	90.6	65.7	72.8	72.6	74.6	73.8	73.2	70.9	63.0	61.6	60.9	60.4	54.7	50.4	
Transportation equipment	99.1	91.3	97.2	103.5	76.4	80.9	80.8	80.6	82.0	91.1	83.7	71.6	66.3	66.0	62.8	60.8	60.8	
Leather and its manufactures	98.1	98.6	92.4	93.1	75.5	85.4	86.2	85.2	81.6	75.6	73.8	78.6	80.0	76.2	69.7	55.0	58.1	
Cement, clay, and glass products	101.5	96.2	90.4	87.0	68.7	67.3	70.2	73.4	77.1	76.1	66.4	66.4	66.4	60.9	60.9	56.3	56.3	
Non-ferrous metal products	103.0	100.3	101.7	115.2	79.6	91.5	91.7	91.0	88.3	84.4	85.0	76.0	72.0	70.7	69.4	67.3	67.3	
Chemicals and allied products	103.0	100.7	71.0	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	100.8	100.8	99.9	94.7	
Rubber products	106.2	121.2	105.5	114.8	81.9	83.0	82.6	88.9	92.1	94.5	95.4	88.3	77.6	71.8	65.9	58.7	62.6	
Tobacco manufactures	92.1	91.1	88.4	87.7	79.4	77.0	80.0	81.0	77.1	82.1	84.4	81.9	77.2	80.0	76.8	77.7	77.7	

* Latest revision of Federal Reserve Board's adjusted to Biennial Censuses of Manufactures through 1927 (*Federal Reserve Bulletin*, XV, No. 11 [November, 1929], 712-15). For seasonal adjustments of the employment indexes see *Federal Reserve Bulletin*, XVI, No. 11 (November, 1930), 666-67.

SOCIAL AND LABOR LEGISLATION

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ABSTRACT

Noteworthy changes in social legislation, including labor legislation, enacted in 1930 by Congress and the legislatures of 12 states of the United States are reviewed. Old age assistance in the form of poor relief, somewhat humanized, rather than old age pensions, is provided by law in New York and Massachusetts. Labor legislation dealt with improved service under workmen's compensation laws in four states and Porto Rico, notably in Virginia, and, through additional diseases, made compensable in New York. Congress extended federal vocational rehabilitation to persons injured in industry for another two years. Unemployment statistics and investigation of available public services were provided by Congress and in several states. Little legislation on the subject of hours of labor. Nine-hour day and 54-hour week, with exceptions, enacted for women in Louisiana. Half-day weekly holidays assured for women over 16 years of age in New York factories and mercantile establishments. Some reorganization of Federal Public Health Service and of federal administrative units concerned with prohibition, narcotics, and the treatment of prisoners. Anti-steal-trap measure of humane legislation in Massachusetts adopted on initiative-referendum at November election.

The year 1930 is an off one in state legislation because most states are tending more and more to adopt biennial sessions. South Carolina, during the year under review, adopted a constitutional amendment providing for biennial instead of annual sessions of its legislature. Of the legislatures holding biennial sessions, only three (Kentucky, Virginia, Mississippi) take place in even years and in addition to these, five states holding annual sessions (New York, New Jersey, Rhode Island, Massachusetts, and South Carolina) were in session (one of them, New Jersey, held an extra special session), and four states (Illinois, Kansas, New Hampshire, and Utah) held special sessions, thus making, in all, twelve state legislatures in session some time during the year.

Changes affecting legislation in general, such as providing for legislative drafting, etc., and administrative organization for its enforcement are reviewed in Professor Chamberlain's article on "Government" (*q.v., infra*). In the major divisions of social legislation there was little achieved by the states in 1930 of outstanding importance but greater efforts in this direction were made by Congress in relief measures providing for the temporary emergency unemployment situation, the sufferers from the drought and hardships caused by the general business depression. Some of the measures were hang-

overs from the session in the spring of 1930; others were considered in the Senate or the House during the early days of the last session, beginning in December, but were not enacted into law until near the end of the session, March 4, 1931. One important measure, the compromise agreed to in the Maternity and Infancy Act which proposes to continue, in modified form, somewhat more complicated, expensive, and less sure of continuing beneficial results, the former Sheppard-Towner Act To Promote the Welfare of Mothers and Infants, failed on the last day of the session because of the filibuster.

PUBLIC POOR RELIEF

An important chapter providing for security against old age want was added to the new Public Welfare Law of New York (chap. 565, 1929) by chap. 387, L. 1930 which creates art. xiv A of the Public Welfare Law and provides that the new article shall take effect May 1, 1930, but applications for relief thereunder shall not be made until September 1, 1930, and relief shall not be granted before January 1, 1931.

Old age relief is provided under this article for any person aged 70, unable to support himself in whole or in part and without children or other persons able to support him under the provisions of the poor law, provided he is a citizen of the United States and a resident of New York state for at least ten years preceding application for old age relief, and has resided in the public welfare district for one year before making application. Other minor conditions make exceptions of old persons who require continued institutional care or are at the time inmates of public or private institutions of a custodial, correctional, or curative character. The public welfare districts administer the relief and provide it in the first instance and the state reimburses the public welfare district to the extent of one-half of the amount expended for relief in accordance with rules laid down by the state department. The state also reimburses the public welfare district for one-half of the administrative expenses of the old age relief measure. The amount and nature of the relief afforded, which may be medical and surgical care and nursing or in the form of cash or check, is determined by the public welfare official, in accordance with rules and regulations prescribed by the state department.

Many measures to humanize the administration of the poor law with respect to old age relief have been enacted in recent years in all the states. None goes as far in the direction of social insurance as the New York law although it is not an old age pension act, based on the principles that are finding wide discussion and some acceptance in other states. An outright pension scheme in New York was advocated unsuccessfully by Governor Roosevelt but even before the legislature adjourned or any application had been registered for the relief provided by the old age security act which it had passed, steps were taken looking to a further public investigation and the introduction of a real pension act in the legislature of 1931.

Massachusetts followed New York in enacting an old age relief measure along the lines of a humanized poor law (chap. 402; effective July 1, 1931). This relief will be administered under the state department of public welfare through bureau of old age assistance established in each local board of public welfare, which is authorized to grant adequate assistance to deserving citizens 70 years of age or over who have resided in the commonwealth not less than twenty years immediately preceding arrival at such age, and subject to such reasonable exceptions, rules, and regulations as the department of public welfare may prescribe. The assistance may take the form of outdoor relief and, wherever practicable, shall be given to the aged person in his own home or a boarding home and it shall be sufficient to provide dignified care. No person, receiving assistance under this act, shall be deemed a pauper by reason thereof. Cities and towns are reimbursed for one-third of the amount of such assistance given and, if the person has no settlement in the commonwealth, the whole amount becomes a state charge.

Federal legislation providing for additional and increased Porto Rican hurricane relief and for relief, partly in the form of loans, for the sufferers from the drought in agricultural areas in the United States, was passed. Other relief measures, perhaps hardly to be classed as public charity, were the amendments to the World War Veterans' Act of 1924 by Public 522 (July 3) allowing disability benefits in cases of 25 per cent or more permanent disability, whether acquired in service during the war or not; and the measure extending the borrowing privilege on veterans' adjusted compensation certifi-

cates due in 1945, which was passed over the president's veto which declared it to be unjustified as an emergency relief measure, by large majorities toward the close of the session, in 1931.

OLD AGE PENSIONS

A new pension act went into effect on January 1, 1930, in California. Investigating commissions were at work studying the old age pension problem under public authority in several states, notably in New Jersey, Delaware, and Michigan, while similar investigations, conducted by semi-official or private social agencies, are at work in many others. The Governors' Conference at which 30 state executives met in July at Salt Lake City, discussed the pros and cons of old age pensions and unemployment insurance, as a result of which 14 governors recommended old age pensions in their messages to their respective legislatures in session in 1931. Of actual legislation on this subject, there was little of significance, only minor measures, strengthening and liberalizing public pensions and disability and retirement relief for public-school teachers, policemen and firemen, and state employees. Some measures were taken by several states or subdivisions of state governments to provide funds and make operative existing old age pension laws which are already on the statute books in more than a dozen states. The outlook, for 1931, seems to assure greater activity for old age security and widespread attention to old age pensions.

LABOR LEGISLATION

Amendments of the Workmen's Compensation acts constitute the most important and most numerous changes in general. Four states and Porto Rico amended their compensation laws for the purpose of clarification and improvement of service; New York added (chap. 60) three additional diseases to the list of those compensable but failed to include the one most needed at the present time, "silicosis." Deposit of securities is made a mandatory condition of self-insurance (N.Y. chap. 184). The minimum weekly compensation for the loss of both eyes is raised from \$8.00 to \$15.00 (N.Y. chap. 600). Virginia permits the Compensation Commission to require additional medical care in extraordinary cases and has raised the rates of the weekly maximum compensation payable from \$12.00 to \$14.00, and

the limit for total disability from \$4,500 to \$5,600, and for burial expenses from \$100 to \$150.

Congress extended the Federal Vocational Rehabilitation Act until June 30, 1933, by Public 371, Seventy-first Congress, second session, and increased the minimum annual allotment of funds to any state to \$10,000, also authorized increased appropriations to the federal board for investigation and administration.

There was much discussion of social insurance in reference to old age pensions and unemployment which resulted in little but talk. Some pension and retirement measures were liberalized for public employees. Congress did pass one of the three Wagner bills dealing with the unemployment situation about as fully and effectively as the federal government could do at present. The one which became law in 1930 directed the Bureau of Labor Statistics to collect and publish full and complete statistics on unemployment. The other two, providing (1) for the better planning of public works and (2) for a co-ordinated federal state system of employment exchanges, passed both houses before the end of the session, March 4, 1931. The first became law with the approval of the president but the second failed because of his veto. The regulation of private employment offices and the encouragement of public employment offices were subjects dealt with in Kentucky (chap. 169); Massachusetts (chap. 117); New York (chap. 425); Porto Rico (No. 46); and Massachusetts, in chap. 60, "Resolves," authorizes a special investigation of unemployment by the department of labor.

Surprisingly little legislation dealt with the subject of hours. Louisiana reduced the maximum hours for women to 9 a day and 54 a week, leaving it permissible for them to be employed for not more than 60 hours a week in mercantile establishments or restaurants outside of any municipality, or in a town or village of less than 2,500 inhabitants or in telegraph offices. The act does not apply to plants or factories handling perishable food (La. No. 71). New York amended the hour law for women over 16 years of age in mercantile establishments and factories so that the permissible overtime (not more than 78 hours a year) cannot be used to deprive them of the weekly half-holiday (chaps. 867 and 868). The effect of this is that New York now requires factories and mercantile establishments to

give women a weekly half-holiday if they work more than eight hours on any day of the week, and also forbids any overtime in connection with the 48-hour 6-day week.

Mississippi passed two laws relating to compulsory school attendance and child labor, requiring attendance for full school term instead of for only 80 days in municipal separate school districts having a population of 10,000 or more, and prohibiting employment of a child between 14 and 16 years of age in any factory or workshop unless he has complied with or is complying with this law. The Louisiana law (No. 71), which reduced the maximum hours for women, except for girls working in stores on Saturday nights, in addition to some other exemptions of special industries, removed a former limitation of a maximum 10-hour day and 60-hour week for boys 16 and 17 years of age. New Jersey appointed a commission by joint resolution of the legislature to investigate the employment of migratory children in the state.

PUBLIC HEALTH, PUBLIC MORALS, AND HUMANE LEGISLATION

Some reorganization of the U.S. Public Health Service, cited by Dr. Moore in the accompanying article by him, which increases the powers, functions, and duties of that service, still retained in the Treasury Department, and increases the salary of the surgeon general of the United States, was accomplished by Public No. 106, approved by the president, April 9. Another important act of federal legislation in the public health field is that which establishes a national Institute of Health (Pub. No. 251) which reorganizes the Hygienic Laboratory of the Public Health Service and enables it on the recommendation of a national advisory health council to accept gifts for investigation and research and to place the results of its research at the disposal of the states or to undertake research for the states; \$750,000 was appropriated for buildings and equipment.

State legislation concerning public health was meager and dealt mainly with safety and health in industry and with provision for improved sanitary regulations by local governments. Important public health reorganization measures were under consideration by commissions, notably the unofficial commission appointed by Governor

Roosevelt in New York, and are likely to produce legislative proposals for consideration in 1931.

Federal legislation dealing with prohibition, narcotics, and the treatment of prisoners is mostly covered by Professor Chamberlain in his article on "Government" (*q.v., infra*). The extension of the work of the U.S. Public Health Service (Pub. 203) to provide for supervising and rendering medical service, and detailing commissioned officers and personnel of the Public Health Service to the Department of Justice for that purpose in federal penal and correctional institutions, is perhaps as important as the provisions of Public 270 authorizing the Attorney General to select sites and make plans for two penal institutions to relieve overcrowded conditions in federal prisons.

By referendum at the state election on November 4, the voters of Massachusetts adopted an anti-steel-trap measure as an amendment to the General Laws, chapter 131, which inserted a new section, No. 59A, which makes it a misdemeanor, punishable by fine of \$50, for any person to use, set, or maintain any trap or other device for the capture of fur-bearing animals, which is likely to cause continued suffering to an animal caught therein and which is not devised to kill the animal at once or take it alive, unhurt. Exception was made of traps or other devices for protection against vermin, set or maintained within fifty yards of any building or cultivated plot of land, to the use of which the presence of vermin may be detrimental. This measure had been rejected by the state legislature by a 2 to 1 vote in the senate and by more than a 3 to 1 vote in the house of representatives but it was approved by the people and is now a part of the law of the state.

MEDICINE AND PUBLIC HEALTH

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ABSTRACT

Mortality and morbidity statistics.—The effects on the nation's vitality of unemployment and drought did not become manifest in 1930, and the people apparently enjoyed better health than ever before; several mortality rates reached a low record for all time. *Public-health measures.*—The White House Conference on Child Health and Protection aroused widespread interest; the work of the United States Public Health Service was considerably advanced by the passage of several important congressional acts; mental hygiene experienced a banner year. *Private practice.*—The number of physicians, dentists, and nurses appeared to be gradually increasing. *Hospitals and clinics.*—There was an increasing tendency for federal, state, and local governments to provide hospital facilities. *Biological and chemical research.*—Important results were achieved in many fields. *Research in medical sociology and economics.*—Three commissions or committees reported progress.

Apparently, no great group of people during modern times have enjoyed better health than did the people of the United States during 1930. Considering the business depression and the drought, this appears surprising, but there is considerable evidence to support the statement. While economic depression and drought doubtless tend to lower the resistance of the people and increase the prevalence of disease, such effects in this case did not become conspicuous during the calendar year. Unfortunately, 1931 may have a different story to tell.

Changes and developments of significance may be considered under the following topics: mortality and morbidity statistics, public-health measures, private practice, hospitals and clinics, legal measures, biological and chemical research, and research in medical sociology and economics.

MORTALITY AND MORBIDITY STATISTICS

The records for approximately 19,000,000 industrial policyholders of the Metropolitan Life Insurance Company in the United States and Canada must again be used as an index of trend among the people generally; the official figures for any given year are never available early the following year. The Metropolitan death-rate for 1930 was 6.6 per cent less than in 1929, and 1.1 per cent less than in 1927, the lowest rate which had then been attained. Presumably the

1930 official rate for the United States was below 11.9 per thousand population, the rate for 1929. This record for 1930 is all the more remarkable considering the unfavorable business conditions which prevailed. The 1930 tuberculosis death-rate for Metropolitan policy-holders was lower than ever before; the typhoid-fever rate was identical with that of 1929, and for measles, scarlet fever, whooping cough, and diphtheria a remarkably low mortality-rate for the year was achieved. While there was a slight increase in the cancer death-rate for the year, there was no change in the rate for diabetes, and there was a decline in the rates for both heart disease and chronic nephritis.

The infant mortality-rate of the registration area for 1929 (made available in 1930) was 68 per thousand livebirths—lower than the 69 rate for 1928, but higher than the rate of 65 for 1927, which was the lowest point reached in the history of the United States.

In respect to the incidence and prevalence of sickness during 1930, very few data are available at the time of writing (Feb. 28, 1931). There was no unusual prevalence of influenza during 1930. Contrary to what might have been expected, there was no convincing evidence of an increase in hookworm disease and malaria. The incidence of smallpox increased from 1927 to 1929, and there were no indications that the trend was stopped during 1930; yet this disease resulting in an incalculable amount of suffering could, in a large degree, be prevented by a simple, well-known measure. There was an outbreak of psittacosis, popularly known as "parrot fever"; 169 cases and 33 deaths were reported. While plague-infected rodents were found in California during the fiscal year ending June 30, 1930, no human case of plague developed. Yellow fever appeared nowhere in the United States.

The death-registration area was increased by the addition of South Dakota, leaving only one state, Texas, now outside the area. The birth-registration area remained the same, with forty-six states included.

PUBLIC-HEALTH MEASURES

The White House Conference on Child Health and Protection took place in November, with 3,300 persons attending. They met

in the hope, as expressed by Dr. Ray Lyman Wilbur, chairman of the Conference, that they might "bring up the general level of child care to the point reached by the outposts of science and weighed social experience." President Hoover told the Conference that the problems before it should stir a nation and merited the attention of statesmen and governments. He continued, "If we could have but one generation of properly born, trained, educated, and healthy children, a thousand other problems of government would vanish. We would assure ourselves of healthier minds in more vigorous bodies, to direct the energies of our nation to yet greater heights and achievement. Moreover, one good community nurse will save a dozen future policemen."

The co-operation of the United States Public Health Service with other governmental agencies engaged in public-health work was made possible by an act of Congress approved April 9. A National Institute of Health was created by another act; it will absorb the Hygienic Laboratory, will greatly stimulate the cause of scientific research, and will enable the government to assume leadership in many fields. This act authorized the Service to accept donations, and within a short time a grant of \$100,000 was made by the Chemical Foundation. The Public Health Service was authorized by Congress to provide medical care in federal prisons, and in accordance with another new law, the Narcotics Division of the Public Health Service was enlarged in scope and became the Division of Mental Hygiene. While a few years ago the Public Health Service had available only \$50,000 a year to encourage, through the granting of subsidies, the establishment of county health departments with whole-time medical officers in charge, for the fiscal year 1930-31 the sum of \$338,000 is available for this purpose.

A public-health survey was made in the state of Maine by the National Institute of Public Administration resulting in the proposal that health work, welfare activities, and certain institutions be merged into one major department. This recommendation has raised an important issue, for such consolidation seems not to be approved by some health authorities. The Ohio and Missouri state departments of health during the year organized bureaus of dental hygiene.

Conspicuous among developments in municipal health depart-

ments was the diphtheria-immunization program of the health department in Detroit. General practitioners immunized children, the health department paying a flat rate of two dollars per inoculation. A house-to-house canvass was made by the health-department nurses to urge parents to take their children to practitioners. A new journal in the public-health field called *Municipal Sanitation* published its first issue early in the year. Abel Wolman is the editor.

The Interchamber Health Conservation Contest inaugurated by the Chamber of Commerce of the United States was so successful in 1929 that it was continued in 1930. Cities participating were graded upon accomplishments in public-health activities. At the spring meeting of the Chamber of Commerce in 1930 awards were presented to the winning cities for 1929 in various population groups. The winners were as follows: for Class 1 cities, Milwaukee, Wisconsin; Class 2 cities, Syracuse, New York; Class 3 cities, East Orange, New Jersey; Class 4 cities, White Plains, New York; Class 5 cities, Sidney, Ohio.

For mental hygiene 1930 was a banner year. The First International Congress on Mental Hygiene was held in Washington in May. Representatives of fifty-four countries attended, and widespread interest was aroused by the meetings. At the annual meeting of the American Medical Association three resolutions were adopted—one which created a special committee of the Association to concern itself solely with the problem of mental disease and its prevention; a second which provided for a study by the Association of hospitals, laboratories, and research facilities for the care of the mentally sick; and a third which advocated psychiatric services in criminal courts and prisons. At the twenty-first anniversary meeting of the National Committee for Mental Hygiene the appointment of a new director, Dr. C. M. Hincks, was announced.

The problems of social hygiene were considered to an increasing extent during the year in connection with other fields of activity and other social and health movements. In the American Social Hygiene Association there was established a new Division of Family Relations.

The Noise Abatement Commission of New York finished early in the year a noise survey of that city. Apparently noise has become

an important public-health problem. Business firms, realizing the disturbing effect of noise on workers, spent during the year over \$3,000,000 in attempts to subdue office noises and exclude street noises.

Two new foundations interested primarily in medicine and public health were created during 1930—the Josiah Macy, Jr., Foundation, and the W. K. Kellogg Foundation. The former will encourage studies in various sociological and economic problems in the fields of medicine, and the latter is promoting health work in rural schools.

The Milbank Memorial Fund terminated its rural and urban health demonstrations in the state of New York, and a scientific appraisal was made of the health program developed by the Fund in Cattaraugus County. Henceforth, the Milbank Fund will give greater emphasis to research. The Julius Rosenwald Fund in co-operation with the United States Public Health Service inaugurated studies in the prevalence of syphilis and experiments in the practical control of the disease in certain rural areas in the South. Dr. George E. Vincent, who retired from the presidency of the Rockefeller Foundation at the end of 1929, was succeeded by Dr. Max. Mason. A reorganization was completed during the year of the extensive medical and health activities of this organization.

With the aid of the Commonwealth Fund the Massachusetts and Tennessee departments of health were active in the development of rural health units with whole-time medical officers in charge. In Massachusetts one unit comprises fifteen towns and another fourteen. Scholarships were offered to practitioners more or less isolated in these rural districts, in an effort to keep them up to date with advances in the science and art of medicine.

The Carnegie Corporation, the Murry and Leonie Guggenheim Foundation, the New York Foundation, the Russell Sage Foundation, the Twentieth Century Fund, and other foundations from whom reports have not been received continued their various pioneering efforts in the promotion of medical and public-health practices.

PRIVATE PRACTICE

While in various sections of the country new projects received special attention during the year, approximately 143,000 physicians,

75,000 dentists, and 200,000 trained nurses were quietly at work day by day administering to the sick, and, to an increasing extent perhaps, were giving attention to the prevention of disease in their private practice. There was an increase in the number of physicians, the American Medical Association reports, but the extent thereof is not yet known. No new figures are available regarding the number of dentists and the number of nurses in the United States.

A Bureau of Medical Economics was created by the American Medical Association during the year; and the American Dental Association appointed a committee to prepare plans for a Bureau of Dental Economics. The Chicago Dental Society, in co-operation with the Julius Rosenwald Fund, agreed to establish a self-supporting, low-cost, ten-chair dental clinic in Chicago. The American College of Dentists assumed financial responsibility for a study of compulsory health insurance at an estimated cost of \$15,000.

In the field of nursing, registries were being organized on a sounder basis and a few important ones became true bureaus of nursing service. Two schools of nursing received grants from the Rockefeller Foundation. Hourly nursing service in Chicago was encouraged by a subsidy from the Julius Rosenwald Fund.

Graduates from medical schools increased in number from 4,446 in 1929 to 4,565 in 1930. The number of graduates from dental schools in 1929 was 2,442 (an earlier estimate of 2,510 appears to have been incorrect) while the number in 1930 was 1,561. Training schools for dental hygienists graduated 367 persons in 1929 and 373 in 1930. From schools of nursing approximately 25,300 were graduated in 1929 and about 26,000 in 1930.

The expulsion of Dr. Louis E. Schmidt from the Chicago Medical Society, which has created much interest among physicians and the public, was sustained by a decision of the Judicial Council of the American Medical Association. A dissenting statement prepared and submitted to the Council by two of its five members was rejected by a majority vote of the Council.

HOSPITALS AND CLINICS

To provide additional hospital, domiciliary, and out-patient facilities for persons entitled to hospitalization under the World War

Veterans' Act, another congressional authorization of approximately fifteen million dollars was approved by the President a few days before the beginning of the year 1930. By an act approved in May construction was authorized of a hospital for the care and treatment of all persons charged with or convicted of offenses against the government who are or shall become insane, afflicted with an incurable or degenerative disease, or so affected mentally or physically as to require special medical care or treatment not available in an existing federal medical institution.

The citizens of New York voted in November their approval of a second fifty-million-dollar bond issue for the construction and development of mental-disease hospitals and correctional institutions to relieve the greatly overcrowded conditions from which these institutions have been suffering.

For the aid of hospitals maintained jointly by two or more counties or cities which conform to certain requirements of the state department of health, a hundred thousand dollars was appropriated by the Virginia legislature. Kentucky cities of the first class were authorized by a new law to construct public hospitals. In Mississippi a new law authorized any municipality of not less than five thousand population, and the county in which it is located, jointly to establish a hospital.

LEGAL MEASURES

Only nine state legislatures convened in regular session during 1930, and no legislative measures of far-reaching importance were enacted into law. Many bills intended to strengthen or weaken the control of the state over medical practice were considered, but most or many of them apparently were not passed. In the Massachusetts legislature a bill was considered and rejected which would have created a department of public medicine to provide all citizens, without cost to them, with complete medical service. New Jersey passed a bill improving the state's control of rabies; New York enacted a law governing the donation of blood for purposes of transfusion; the Rhode Island and Virginia legislatures passed bills controlling the pasteurization of milk.

RECOGNITIONS AND AWARDS

Dr. William S. Thayer and Dr. William H. Welch were authorized, under an act of Congress approved in April, to accept the Legion of Honor tendered to them by the French government.

On the occasion of the eightieth birthday of Dr. Welch in April, many meetings were held in various parts of the United States and in other countries as a testimonial to the many years of valuable services rendered by him in various fields of public health and medicine.

The 1930 Nobel Prize in medicine was awarded to Dr. Karl Landsteiner of the Rockefeller Institute of Medical Research for the discovery that human blood is of four different types and that blood of one type does not always mix with blood of another type. The Nobel Prize in chemistry was awarded to Professor Hans Fischer of Munich for his achievement in the laboratory production of hemin, one of the components of hemoglobin, the red coloring matter of the blood.

The Gold Medal of the American Medical Association was awarded to Dr. R. R. Spencer of the United States Public Health Service for original work in the preparation of a vaccine against Rocky Mountain spotted fever.

The first ten-thousand-dollar Popular Science annual award was shared by Dr. George H. Whipple of the University of Rochester and Dr. George R. Minot of Harvard University Medical School in recognition of their discovery of a successful treatment of pernicious anemia by the liver diet.

BIOLOGICAL AND CHEMICAL RESEARCH¹

The United States Public Health Service has made some valuable contributions during the year, including the finding of a new species of the meningococcus organism, the cause of meningitis. Investigators of the Service also found a phenol compound, tri-ortho cresyl phosphate, to be the adulterant which caused thousands of cases of partial paralysis from drinking bootleg Jamaica ginger, known as "ginger jake."

A hormone from the cortex of the suprarenal glands was isolated by Dr. W. W. Swingle and Dr. J. J. Pfiffner of Princeton University

¹ For further discoveries see the article on "Inventions and Discoveries in this *Journal*."

and used by Dr. Leonard G. Rowntree and Dr. C. H. Greene of the Mayo Clinic to treat hopeless victims of Addison's disease, in the same way that insulin affects the coma of diabetes. Dr. F. A. Hartman and Dr. K. A. Brownell of the University of Buffalo also obtained an extract of the same gland.

It was discovered by Dr. Waclaw T. Szymanowski and Dr. Robert Alan Hicks of the Western Pennsylvania Hospital Institute of Pathology that radio waves, shorter than those commonly used for sending messages, are able to weaken materially the poison elaborated by the diphtheria bacillus.

Genealogical studies at the German Research Institute for Psychiatry, at Munich, reported by Professor E. Rudin, showed that among families having one parent afflicted with manic-depressive insanity, at least a third of the children will be similarly afflicted, and another third will be otherwise mentally abnormal.

In a study of motormen involved in traffic accidents, Dr. O. M. Hall of the Personnel Research Federation found that practically half had health defects, chiefly abnormal blood pressure and hernia, and 39 per cent had personality defects.

That a definite mark on personality is set by diseases suffered during childhood was revealed in a study of identical twins made by Dr. H. W. Newell of Richmond, Virginia.

RESEARCH IN MEDICAL SOCIOLOGY AND ECONOMICS

The Commission on Medical Education issued a report on a study of medical education and related problems in Europe. The Commission has decided to complete its work as rapidly as possible and to go out of existence in 1932.

The Committee on the Grading of Nursing Schools has completed a two-year survey of 1,458 schools of nursing in the United States. The results have been printed in three sections, dealing with *The Student Body*, *What Students Learn*, and *Who Control the Schools?* These three reports, annotated to show the standing of each individual school, have gone to some 10,500 nurses, physicians, and hospital executives and trustees connected with the schools which took part in the study. The Committee plans to make the major results of this study available to the general public in book form.

The research work of the Committee on the Costs of Medical Care reached its peak during the year. Reports, with abstracts, on the following studies were published: *Medical Care for 15,000 Workers and Their Families—a Survey of the Endicott Johnson Workers Medical Service in 1928*; *A Survey of the Medical Facilities of Shelby County, Indiana, in 1929*; and *Capital Investment in Hospitals*. At the end of the year numerous other important studies were nearing completion. In addition, the Committee began the publication of a series of "Miscellaneous Contributions." At the autumn meeting in 1930 the interpretative phase of the Committee's work was inaugurated, and late in the year preliminary work was begun on the final recommendations.

As these concluding words are being penned, bread lines are forming of unemployed men in industrial centers. Thousands of men, women, and children throughout the South are getting insufficient food for the maintenance of health. Self-respecting citizens of Arkansas are receiving from the Red Cross their daily cash allotment, necessarily small, to provide food for their entire families. Unemployment and drought are slowly but effectively leading to lowered resistance of thousands of adults and children throughout the United States. Disease, it seems, must inevitably advance. The reader may expect a different report for 1931.

COMMUNICATION

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ABSTRACT

During 1930 the integration of the newer agencies of communication and modification of older ones continued. Complicated by the general business depression, it is not always easy to interpret some of the year's changes. There is evidence that a saturation point has been reached in the utilization of some of the mediums of communication, notably the automobile and the newspaper; with others, development and expansion continue.

It is impossible to study communication in its manifold developments without being impressed with the extent to which newer agencies are supplementing, in some cases supplanting, older ones. These shifts are of economic and political importance; they affect the nation's financial structure and raise problems of legislation and administration. But they have equally far-reaching influence upon human attitudes and behavior. For instance, the automobile is not only the economic product of a miracle industry; it is also the source of changing attitudes and habits associated with accelerating speed of movement, and with a national development of "tourism." At camps and wayside stands residents of the forty-eight states rub elbows. It is such changes as these that lurk behind the figures presented in the following pages.

RAILWAYS AND COMMUNICATION

The pronounced downward movement in railway-passenger travel, characteristic of recent years, continued during 1930 as measured either in passengers carried or in passenger-miles.¹

The trend of passenger traffic on United States roads becomes clear from Table I. Commutation-passenger figures showed a decline in all railroad regions in 1930. A study of these for the last

¹ The latter (passengers carried 1 mi.) is the more significant measure. The former, which is derived from the totals of each road, involves duplication arising through interroad travel, and does not take into account the distance traveled.

eight years suggests that in this class of traffic the railroads are feeling the competition of bus and private automobile.²

While among railroad men the feeling is strong that motor vehicles will never threaten their control of freight transportation, in an attempt to recapture passenger traffic several western and southern roads in 1930 announced a reduced fare of two cents per mile.³

TABLE I*
PASSENGER TRAFFIC OF ALL STEAM RAILWAYS
IN THE UNITED STATES, 1924-30

Year Ending Dec. 31	Passengers Carried (Thousands)	Passenger-Miles (Thousands)
1924	950,459	36,368,290
1925	901,963	36,166,973
1926	874,589	35,672,729
1927	840,030	33,797,754
1928	798,476	31,717,566
1929	786,432	31,164,739
1930.	720,228	27,215,276

* Data for 1924-27 taken from Table II, p. 18, of *Growth of Traffic on Steam Railways of the United States, 1900-1928—a Report to the Interstate Commerce Commission from Its Director of Statistics* (Washington, 1929). Figures from 1928 to 1930 are compiled from Interstate Commerce Commission data contained in its bulletin of monthly revenue traffic statistics. Data for 1930 are estimated.

The estimates are derived from complete 1929 data and from 1930 data for Class I railroads for the months Jan.-Oct. inclusive, arranged in ratios of the following form: Class I roads, Jan.-Oct., 1929: All roads, Jan.-Dec., 1929: Class I roads, Jan.-Oct. 1930: x (the estimate for all roads), 1930. Any attempt to estimate 1930 data is greatly complicated by the general business depression. Dr. Julius Parmelee, using data of the Bureau of Railway Economics, reaches results that correspond rather closely with those given here. Cf. Julius H. Parmelee, "A Review of Railway Operations in 1930," *Railway Age*, XC (1931), 45 ff.

Bus transportation continued, however, to develop during 1930, and it is estimated by *Bus Transportation* that 95,400 busses are used in transporting passengers. Both steam and electric roads are supplementing their rail services with this newer type of service. At the close of 1930, 390 electric-railway companies were operating busses, a slight increase over 1929. There were 13,522 vehicles being used by these roads, or about 1,000 more than were in operation a year earlier. While only 650 single-track miles of street railways were replaced by bus service in 1930, over 5,000 miles were added

² For data see *Growth of Traffic on Steam Railways of the United States, 1900-1928—a Report to the Interstate Commerce Commission from Its Director of Statistics*, p. 8a, and bulletin of monthly revenue traffic statistics.

³ *United States Daily*, Feb. 2, 1931.

by street-railway companies to bus routes. Nearly 70 American steam railways now operate bus subsidiaries in the passenger service.⁴

AUTOMOBILE AND TRAVEL HABITS

The production of motor vehicles slumped markedly during 1930. The National Automobile Chamber of Commerce estimates the total as 3,505,000 compared with 5,622,000 during 1929—a decrease of 37.7 per cent.⁵ Passenger-car production fell from 4,794,898 in 1929 to an estimated 2,943,200 in 1930. The corresponding truck-production figures are 826,811 and 561,800. The total estimated registration of motor vehicles increased only 0.8 per cent over 1929. Passenger-car registrations showed little if any increase according to the National Automobile Chamber of Commerce estimate.⁶ Passenger-car registrations per thousand dropped from 190.4 (1929) to 189.0 (1930 estimate). There is some reason to believe that the saturation point in automobile ownership has been reached.⁷

How much do Americans travel in their passenger motor cars each year? The National Automobile Chamber of Commerce has arrived at an estimate of 389,000,000,000 passenger-miles for 1929, using the average of the numbers of registered passenger cars, minus busses,

⁴ *Electric Railway Journal* (Annual Statistical and Progress Number), LXXV (1931), 3-5, 27-33. Additional information supplied by Mr. C. W. Stocks, editor of *Bus Transportation*, and Mr. John A. Miller and Mr. J. R. Stauffer, editor and assistant editor of the *Electric Railway Journal*. Cf. *Bus Transportation*, X (1931), 68-69.

⁵ The estimate of the editors of *Automotive Industries* (Philadelphia) is slightly lower: total 1930 production, 3,477,000, a decrease of 38.2 per cent from the 1929 figure. This includes an estimated decrease of 39.2 per cent in passenger-car production and 32.1 per cent in truck production. Cf. *Automotive Industries*, LXIV (Jan. 17, 1931), 83.

⁶ In 1929 registrations of passenger cars numbered 23,121,589. The 1930 estimate is 23,200,000 (National Automobile Chamber of Commerce, *Preliminary Facts and Figures, Automobile Industry, 1930*, issued yearly). Other estimates indicate a slight loss in total passenger-car registration. It should be noted that passenger-car registrations in most states include busses, which may have shown an increase over 1929.

⁷ Figures of automobile registration collected from the several states are subject to certain errors. For example, taxicabs and busses may or may not be registered as passenger cars. In some states a change of car during the year carries the old registration, whereas in other states it necessitates a new registration, thus making duplications possible. The statistical department of the National Automobile Chamber of Commerce attempts to correct for such errors in so far as possible, but complete correction cannot be assured.

on December 31, 1928, and December 31, 1929. The estimate assumes, on the basis of certain surveys, that the average car contains 2.5 passengers, and that it travels 7,000 miles per year. A similar estimate by the writers for 1930 gives 404,000,000,000, an increase of approximately 4 per cent.⁸ For 1922 the figure of the National Automobile Chamber of Commerce is 80,000,000,000 passenger-miles. Railroad passenger-miles for 1930 are estimated at slightly more than 27,000,000,000, and are declining yearly. The country is obviously reshaping its travel habits in terms of motor-vehicle transportation.

The widespread use of the automobile, and the consequent mobility of the population, have produced new institutions for housing the traveler, and modified older ones. Data relating to tourist camps and overnight lodgings are fragmentary, but point to pronounced increase in numbers. In 1930, as a result of licensing legislation, 430 roadside camps were under supervision in Maine, and 2,678 roadside eating places had been inspected.⁹ Registration of overnight campers at New York state public camps are summarized by the Conservation Department of the state. From 1927 to 1930 the number of camps increased from 7 to 19. Registrations were as follows:

1927—	36,816
1928—	54,924
1929—	129,883
1930—	267,886

Figures of the Department of Commerce for 1929 lead to an estimate of 110,000 wayside camps and refreshment stands in the country, of which 65,000 are permanent.¹⁰ The growth of the automobile tourist camp and overnight lodging has given rise in several states to agitation for their control. While the hotel industry is directly concerned, no small part of the impetus for legislation has come from

⁸ This increase contrasts with the stationary passenger-car registrations noted in the preceding paragraph. It results from the method of calculating the average registrations for any year, in consequence of which the 1930 estimate reflects some of the gain in passenger-car registration during the year 1929.

⁹ *United States Daily*, Dec. 2, 1930.

¹⁰ Statement by Ray Hall, Finance and Investment Division, United States Department of Commerce, *ibid.*, Nov. 4, 1930; see also Ray Hall, *The Balance of International Payments of the United States in 1929* (Washington: Government Printing Office, 1930).

groups interested in the moral aspects of the overnight stopping place.¹¹

Hotel men agree that the automobile has been the important factor in stimulating widespread travel by women. This in turn has profoundly influenced the furnishings of the modern hotel, and has resulted in greatly modifying hotel and restaurant menus.¹² Returns from a questionnaire sent to hotel executives in twenty states indicated that in 1930, 67 per cent of hotel guests arrived by private automobile or bus and that 55 per cent of these hotels operated a garage in connection.¹³

The development of the automobile presumably lies behind the improvement of hotel facilities in smaller communities. Although specific data are not available, it is the belief of those intimately associated with the hotel industry that such an increase in facilities is a reality. Figures showing the growth of the hotel in the United States may be taken as one index of increased mobility of the people. Since 1920 the number of hotels has increased from 20,800 to 26,800, or 29 per cent. During the same decade available rooms increased 47 per cent, although the number of guests registered increased only about 12.5 per cent.¹⁴

Mobility of the population is also evident in the convention habit, which according to foreign visitors is one of the characteristic aspects of American life. While data for earlier years are not yet tabulated, in 1930 there were held 15,653 conventions of various kinds, including 1,153 in Canada, with a total attendance estimated at 4,101,000. California led with 1,185, Ohio came second with 1,159, and New York was third with 1,063. The conventions already listed for 1931 exceed by 1,093 the number listed at a similar time a year ago.¹⁵

¹¹ Cf. Norman Hayner, "Automobile Camps in the Evergreen Playground," *Social Forces*, IX (1930), 256-66.

¹² See *Restaurant Management*, Aug., 1930, p. 105.

¹³ Data supplied by Mr. J. O. Dahl, associate editor, *Hotel Management*, and the Ahrens Publishing Co., New York.

¹⁴ Data from *Hotel Management*, XVI, 198, and through the courtesy of Mr. J. O. Dahl, of the Ahrens Publishing Co., and Mr. E. C. Romine, of Horwath & Horwath, hotel auditors.

¹⁵ Jan. 28, 1930. Data supplied through the courtesy of Mr. F. F. Hendrickson, president of Hendrickson Publishing Co., publishers of *World Convention Dates* (New York).

AERONAUTICS

There have been notable events in aviation during 1930. In September the first Paris to New York flight was completed by D. Coste and M. Bellonte with an elapsed time of 37 hours and 18.5 minutes. During the year the first all-air coast-to-coast passenger service on a regular thirty-six-hour schedule was established, and three routes are now operated. In April air-mail service from New York to Buenos Aires was inaugurated.¹⁶ Already international and intercontinental passenger and mail air service is introducing problems of a new nature. Surgeon General H. S. Cumming of the United States Public Health Service points out that the usual time required for a ship journey exceeded the period of incubation of many contagious diseases, which could thus be detected at the port of entry. This natural protection disappears with communication by air. Several nations have begun discussion of the health problem that is involved.¹⁷

The number of passengers carried in 1930 by transport lines with regular schedules totaled 385,910, as against 165,263 in 1929, and the number of transport companies increased from 27 to 35 during the year. Transport planes in 1928 flew 10,472,024 miles; in 1929, 20,242,891 miles; and in 1930, 28,833,967 miles.¹⁸ The average journey per passenger is estimated as 250 miles.¹⁹ Domestic air-mail routes now cover 21,802 miles, and 1930 operation called for 17,948,-657 flight-miles; 16,662,764 miles were actually flown, in which 8,005,201 pounds of mail were carried, as against 7,096,930 in 1929.

¹⁶ In Feb., 1931, regular air-mail service began between Winnipeg and Minneapolis, the connecting link in an 11,000-mile mail route from Northern Canada to the Argentine. A letter mailed in the Yukon is now delivered in the Argentine in three weeks; before the new Minneapolis-Winnipeg service, delivery took nine weeks (*United States Daily*, Feb. 2, 1931). In Nov., 1930, the postmaster-general advertised for bids for the establishment of a weekly transatlantic air-mail service by way of Bermuda and the Azores. Because of a defect in wording the advertisement was withdrawn, but it is to be reissued shortly.

¹⁷ *United States Daily*, Jan. 31, 1931.

¹⁸ Data from statistical Appendix of *Aircraft Year Book*, 1931, compiled by the Aeronautical Chamber of Commerce, New York.

¹⁹ Estimate furnished by Mr. W. E. Berchtold, of the Aeronautical Chamber of Commerce, New York.

Less than 7 per cent of approximately 53,000 trips actually scheduled by American air lines in 1930 were canceled or failed of completion.

The Aeronautical Chamber of Commerce, on the basis of reports from operators, estimates that in addition to the preceding "air transport," so-called "aerial service" (chartered planes, sight-seeing, etc.) added 95,959,645 miles flown in the air, a decrease from 104,336,560 miles flown in this type of service in 1929, although still a huge increase from 8,411,889 in 1928. In this non-scheduled type of service 2,621,769 passengers were carried in 1930 as against 2,995,530 in 1929, and 5,324 planes were in service as compared with 7,408 in the preceding year. In corporation and personal "private flying" there was an estimated growth from 25,000,000 in 1929 to 40,000,000 in 1930. The decline in "aerial service" is explicable in terms of the enlargement of the other two classes of service.²⁰ On January 1, 1930, 13,900 miles of route were lighted or in process of being lighted; one year earlier the figure was 9,302.²¹ During the fiscal year 1931 the Department of Commerce will equip 3,000 additional miles with lights, bringing the total lighted mileage to about 17,000 miles, which is three-quarters of the trunk airways installed by the federal government.²² Facilities for air travel continued to expand in 1930, and on December 31, 1930, there were in the country 550 municipal airports, as compared to 453 in 1929. Commercial airports increased from 495 to 564, and Department of Commerce intermediate fields from 235 to 240. The Department of Commerce had on record at the close of 1930, 1,413 proposals for new airports, as against 921 a year earlier.²³

On June 30, 1930, there were 15,280 pilots, licensed or pending, as against 10,215 on December 31, 1929. There were 7,354 licensed planes, compared with 6,685 in 1929, and the number of unlicensed planes decreased from 3,155 to 2,464. Of the licensed pilots in 1930, 385 were women. There are now 178 glider pilots licensed by the

²⁰ Data from statistical Appendix of *Aircraft Year Book, 1931*, compiled by the Aeronautical Chamber of Commerce, New York.

²¹ *Report of the Assistant Secretary of Commerce for Aeronautics, 1930*, pp. 45-46.

²² *United States Daily*, May 6, 1930.

²³ Data from *Annual Report of the Secretary of Commerce, 1930*, pp. 43, 52; and statement of the Aeronautics Branch, Department of Commerce, in the *United States Daily*, Jan. 9, 1931.

Department of Commerce, and 1,088 gliders have been given identification marks.²⁴ The appearance of the autogiro is already raising new problems of aircraft control.²⁵

FOREIGN TRAVEL

Foreign travel still attracts Americans in increasing numbers as revealed by passport figures. In 1930, 198,870 passports were issued to Americans traveling abroad, and 4,357 passports were extended. In 1929, 196,930 passports were issued, and 189,308 in 1928.²⁶ A determined effort is being made by foreign governments to attract American tourists. Fifty-two national governments at the end of 1930 were promoting tourist trade in one way or another, and 29 countries offered travel inducements in the form of reduced passport fees. Austria, Italy, and Roumania are using the radio directly to draw visitors.²⁷

THE RADIO

The radio has become the great American toy, while at the same time its practical utility is developing along many lines. Employing trade data, the United States Department of Commerce estimates that there were 13,478,600 radio sets in the United States on July 1, 1930, or one set for every 9.1 persons of the population.²⁸

Because of the urge from advertisers, numerous investigations during 1930 have aimed to analyze the audience of the country's radio stations. A study by Crossley, Inc.,²⁹ suggests that the effective lis-

²⁴ Statement by Assistant Secretary of Commerce for Aeronautics, *United States Daily*, Jan. 14, 1931.

²⁵ *Ibid.*, Feb. 10, 1931.

²⁶ Data from Passport Division, Department of State. Present extension provisions became effective July 1, 1930.

²⁷ H. M. Bratter, *The Promotion of Travel by Foreign Countries* (Washington: Finance and Investment Division, United States Department of Commerce, 1931), pp. 63 ff.

²⁸ For this estimate, by states, see *Domestic Commerce*, issued by the United States Department of Commerce, VI (Nov. 30, 1930), 167. As this section is being written (Feb. 15, 1931) the Bureau of the Census has begun releasing figures on radio ownership compiled from the 1930 census. New Hampshire has 53,111 sets, or 8.76 persons per set; Delaware 27,183, or 8.77 persons per set.

²⁹ A research engineering firm, New York, not to be confused with the Crosley Radio. The Crossley study is sponsored by about fifty concerns in conjunction with the Association of National Advertisers.

teners per set at any time should be taken as 3.1.³⁰ Investigations reveal that 3 out of every 4 sets owned are used at some time during each day, but that no more than half of the total sets are in use at any one time, even when the most popular programs are on the air.³¹ Crossley, Inc., found that 2 out of every 3 sets are in use at some time each evening. One-sixth are in use at 6:00 P.M., one-third at 7:00 P.M., two-fifths at 8:00 P.M., one-half at 9:00 and 10:00 P.M., one-third at 11:00 P.M., and one-fourth at 12:00 P.M.³² Interesting variations in the radio audience appear by sex, section of the country, time of day, day of week, month of year, and economic status.

Both of the major broadcasting chains expanded during 1930. The National Broadcasting Company now has the possibility of linking seventy-five stations, including two in Canada, and is on the air over three networks and supplementary stations for eighteen hours a day. Six stations were added to the network during the year, and the permanent wire interconnection totals 34,500 miles.³³ The Columbia Broadcasting System has now in its potential circuit seventy-seven stations, with twenty cities in its basic network. In both chains income from advertising mounted during the year, although in both the bulk of the radio time is not sponsored by advertisers.³⁴

While "fan mail" is not an accurate measure of the size of the radio audience, it hints at the extent to which the radio has become a part of American life. Over 2,000,000 letters were received from National Broadcasting Company programs in 1930, an increase of 1,000,000 over 1929.³⁵ A single address on a religious topic over a Columbia network of twelve stations produced 438,000 letters.³⁶

³⁰ *Fortune*, II (Dec., 1930), 65 ff.

³¹ Data supplied by John J. Karol, director of market research, Columbia Broadcasting System, from unpublished manuscript. Cf. *Fortune*, II (Dec., 1930), 65 ff.

³² *Ibid.*

³³ *Advisory Committee of National Broadcasting Company, Fifth Meeting, 1931.*

³⁴ With the National Broadcasting Company from Sept. through Nov., 1930, 30.4 per cent of the program hours originating at the New York studios were advertising programs, 9.1 per cent were institutional programs (such as public meetings, Red Cross programs, Damrosch programs, etc.), and 60.5 per cent were sustaining programs, i.e., provided by the National Broadcasting Company. Data supplied through courtesy of Mr. E. P. H. James, National Broadcasting Company, New York.

³⁵ *Advisory Committee, National Broadcasting Company, op. cit.*

³⁶ Data supplied by J. J. Karol, Columbia Broadcasting System.

In broadcasting news events the radio again demonstrated its importance as a supplement to the newspaper. Especially dramatic was the running account of the Ohio prison fire which was described over a national hookup as it raged. It is in fixed, prearranged events, however, that most is to be expected from the radio as a news agency. The total time given to broadcasting news events (thus competing with the newspaper) is small.³⁷ Some evidence of the extent to which the radio is opening new channels of communication is seen in the fact that officials of the federal government during 1930 used nearly 1,000 hours of time on the two major chains, and that during the year there was at least one spokesman for every department of the federal government on both chains.³⁸ The potentialities of the radio as an educational device have been discussed considerably throughout the year, and in New York the development of a gigantic radio center, backed by John D. Rockefeller, Jr., was announced.³⁹ Sponsored by the United States Chamber of Commerce, the Radio Corporation of America, and the United States Office of Education of the Department of the Interior, an experiment has been under way to ascertain the influence of the radio upon isolated communities. Preliminary results indicate considerable modification of habits.⁴⁰

THE TELEPHONE NETWORK

During the last year installations of telephones were not as numerous as in preceding years, although this is not surprising in view of general business conditions. The United States Department of Commerce estimates that as of January 1, 1931, there were 20,365,000 telephones in use in the United States.⁴¹ An increasing use of the tele-

³⁷ Officials of the N.B.C. in an interview estimated it as less than 2 per cent.

³⁸ President Hoover spoke twenty-seven times over national circuits in 1930, and has spoken thirty-seven times to a national audience during the first twenty-two months of his administration. This equals the total broadcasts by former President Coolidge in his seven years in office. See *United States Daily*, Dec. 30, 1930.

³⁹ *New York Times*, June 16, 1930. Also see *United States Daily*, Jan. 31, 1931; Jan. 28, 1931; Sept. 17, 1930; Nov. 12, 1930; Nov. 19, 1930; Dec. 16, 1930.

⁴⁰ Data supplied by William John Cooper, commissioner of education, Department of the Interior.

⁴¹ Statement in the *United States Daily*, Jan. 13, 1931. Additional data are available in *Telephone and Telegraph Statistics of the World*, issued annually by the American Telephone and Telegraph Co.

phone in toll service results in immediate contacts over wider areas.⁴² Toll wires of the Bell System carried approximately 400,000,000 messages a year in 1920, 625,000,000 in 1925, and 1,115,000,000 in 1929, an increase during the period of slightly more than two and one-half times. During the same years the number of local-exchange telephone calls did not quite double.⁴³ While some of the increase in toll traffic is the outgrowth of extension of urban areas, "the largest increases are being felt in the very long distance business, particularly on the transcontinental routes and the routes between the largest cities in various parts of the country."⁴⁴ This increasing utilization of toll facilities is accompanied by greater speed in arranging long-distance connections. The average time in 1924 was 7.5 minutes, and in 1929, 2.4 minutes. In 1929 more than 70 per cent of all long-distance calls were made without the subscriber returning his receiver to the hook.⁴⁵ Toll rates in general have been reduced considerably since 1926, which unquestionably contributes to greater usage of the telephone.

MOTION PICTURES

The year 1930 also found the talking motion picture firmly established. Theaters not equipped with sound apparatus are closing, not only because of competition from the "talkies," but because of inability to obtain silent films. N. D. Golden estimates that there are 22,731 motion-picture houses in the country, seating 11,300,000 and with a daily attendance of 15,000,000. The talking picture, he states, originally increased attendance by about 15 per cent.⁴⁶ Since the middle of 1930 attendance has declined. The influence of the radio upon the motion picture is evident in the appearance late in 1930 of

⁴² "The term 'toll' is applied broadly to telephone service between different localities as contrasted with 'local' service which is, in general, within one municipality or center of population" (W. H. Harrison, "Recent Developments in Toll Telephone Service," *Bell Telephone Quarterly*, IX [1930], 124).

⁴³ *Annual Report of the American Telephone and Telegraph Company for the Year 1929* (New York), p. 26.

⁴⁴ Harrison, *op. cit.*, p. 125.

⁴⁵ *Annual Report of the American Telephone and Telegraph Company for the Year 1929*, pp. 2-3.

⁴⁶ Statement by N. D. Golden, assistant chief, Motion Picture Division, United States Department of Commerce, in *United States Daily*, May 3, 1930.

the "sponsored" motion-picture film which so far as content is concerned contains no advertising but is announced as "presented by _____," with the name of the advertiser given. For this privilege the advertiser pays so much per thousand attendance at the theaters where the film is run.⁴⁷

THE NEWSPAPER

American newspaper circulation remained almost at a standstill last year, and the total number of papers published continued to decline. At the outset of 1931 there were 388 morning papers, 1,554 evening papers, and 521 Sunday papers, while the corresponding 1930 figures were 381, 1,563, and 528, respectively. Morning circulation in 1930 was 14,434,257 as compared with 14,448,878; evening circulation in 1930 was 25,154,915 compared to 24,976,737 (a slight gain); and Sunday circulation dropped from 26,879,536 (1929) to 26,413,047 (1930).⁴⁸ Advertising lineage suffered a 12.4 per cent drop from the 1929 level, largely in consequence of the slump in automotive advertising. There are now fifty-seven important newspaper chains in the United States, and their development and growth raise interesting questions of social control.

It is impossible to discuss here the ramifications of the most obvious changes in American life summarized by the preceding data. On the one hand is a process of integration and adjustment; on the other is a lively competition accompanied by mutual fears: railroad fighting bus; bus fighting street car; newspapers concerned over radio advertising; moving picture competing with radio; hotel fighting tourist camp. The ultimate outcome cannot be predicted; one can only be impressed with the changes that go on before the eyes and marvel at the way in which American life, and the habits of the individual citizens, are being transformed.

⁴⁷ Statement by C. T. North, chief of Motion Picture Division, Department of Commerce.

⁴⁸ Data from *Editor and Publisher* (International Year Book Number), Jan. 31, 1931, p. 17, and are based on A.B.C. reports and post-office statements for the six months prior to Dec. 31 of each year.

COMMUNITY ORGANIZATION

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ABSTRACT

Neighborhood assistance supplied the bulk of relief in unemployment crisis, but was woefully inadequate. Organized community relief was delayed, unequal to the great task, and disunited. Various local organizations attempted relief, showing a lack of appreciation of the leadership and methods of organization necessary in the larger community. Out of the crisis reliance on the larger social unit is emerging for a few needs. Community agencies, hitherto more or less unrelated, have in a measure been brought together. Community responsibility for care of the sick is emerging. Social workers are contesting some of the efforts of community chests to integrate authority. Realization of lack of integration is shown in studies of social distance. Community organization and city planning have become subordinate to the study of regionalism. Closer relations between school authorities and community agencies was advocated. The White House Conference received reports on planned communities, community centers, and community houses. Several community studies were undertaken. Considerable effort was made toward a formulation of group work method and group records. Eighteen books on social changes involving community appeared.

THE STRESS OF CRISIS

The social area, larger than the family, that surrounds the individual, namely the community in which he meets his fellows in face-to-face contacts and learns the patterns of social behavior, has passed through twelve months in which change has taken place even more rapidly than in other recent years. First, the economic disturbance has emphasized the presence but inadequacy of old neighborhood ties in time of crisis. The distress of the unemployed has been met only in part by the combined help of private and public relief, but by far the largest measure has come from such agencies as relatives, storekeepers, members of the same churches, lodges, language groups, of the distressed. Guessing is gratuitous on such a question but it is conservative to conjecture that nine-tenths of all material relief has come from the unorganized "community" sources. Observation of trained and experienced workers in many cities and rural districts bears out the statement. And yet that sort of assistance is woefully inadequate and the great burden of the most distressing need has become a city-wide, state-wide, nation-wide problem for organized private, semi-private, and public relief. The year has seen a thoroughgoing appreciation of the fact that for mutual help in time

of economic slump, this country is past the stage where rugged individualism, family savings, or mutual aid in small groups is sufficient. The "community" even for very personal matters of this kind is for us a much larger complex of relations.

If the old neighborhood economy is inadequate, so also are the newer forms of community aid. Not only has private and public charity proved too weak to bear the brunt of widespread depression, but it has demonstrated its lack of comprehension, unity, and willingness. The new "community" is young and weak. First it was very slow in answering the need—even reluctant to recognize it. Industrialists and community boosters feared public discussion might aggravate the depression and as one authority said of Cleveland the words that could have been uttered of almost any community in the United States: "There arose a period in which the community remained relatively stagnant in the face of the impending crisis." Reluctant to start, the community under the leadership of organized groups headed by successful business men and their wives has refused to give in quantities to relieve adequately even the most obvious cases of distress. In New York, \$8,600,000 was raised by private subscription, and at this writing the city is faced with depletion of the fund and the presence of many thousands of distressed families. Private charity leaders demand appropriation by the city. The Social Service Exchange for 1930 up to and including December 27 totaled 335,088 cases cleared; for 1929, 188,505. Detroit is taking care of the bulk of relief through the Public Welfare Department, spending nearly \$2,000,000 per month. The public agencies there are seeking to put some of the burden on private shoulders. No community spirit in any city has proved sufficient to roll up the sums that were necessary—money has "come hard."

The American community is in only rare instances "co-ordinated" beneath the surface, despite the shibboleths used by social work leaders; for in more than one town the unemployment crisis has brought with it grave disputes between the major relief agencies, and even where a united front finally was achieved, there were many antagonisms that flared and burned in the shifting for positions of prestige and the seeking for credit for unemployment relief. In the present crisis it is also clear that the organized charities have not

heretofore established universal confidence in themselves and in their methods. Desire showed itself on the part of hundreds of local organizations devoted to educational, fraternal, social, religious, or other purposes, to take up relief work. The result is a deflection from the agencies with experience, training, and technique of the strength they need so badly to the ill advised, scattered, and ineffective channels of small, diverse organizations. The phenomenon indicates that many "joiners" of local groups are still thinking and feeling in terms of an old neighborhood economy.

Out of the experience is evolving a feeling of reliance on the larger social units for relief and in that feeling the beginnings of a larger community consciousness. As a formulation of that consciousness there is emerging social insurance and various schemes in Cincinnati, Detroit, and other places to insure by an organized framework against the worst of the evils of depression. The most striking feature of these schemes is the bringing together of industry, social service, government, and practically every agency of importance into community planning and operation. There is an incipient integration of the larger community, and with it a critical analysis of certain commercial agencies like employment bureaus that have been exploiting in the absence of a community consciousness. Unemployment has, as did the war, ramified into every major sphere, as witness, for example, the symposium under the auspices of the American Association for Adult Education on "Unemployment and Adult Education," a symposium in which participated a score of national leaders. Meanwhile, as might be expected, the little there is of community pulled itself together, or tried to, to expel any "out-group" members. As a result aliens are learning of more discriminations against them than in more prosperous times and others of the less privileged class find it more than ordinarily difficult to take their accustomed places in the body politic.

ONE GAIN

At least one gain in mutual provision on a large scale is to be noted in the adoption by a few and the advancement in a dozen states of old age insurance provisions. Undoubtedly the depression has helped to bring human sympathies into play against the de-

fenses usually set up against larger community measures, defenses such as slogans of "socialism, dole, etc."

A further widening of social sympathy based on study of facts and related but little if at all to the depression are the studies by the Committee on the Costs of Medical Care. These studies are effectively accelerating the acceptance of community responsibility for many of the costs of illness that industrialized society has made too great and too complex for individual, family, or small group responsibility.

QUESTIONING OF SOCIAL FORMS

With the strain of need and also with the advance of the few socializing measures have gone conflicts and a more fundamental questioning of community structure. A committee of the national organization of the social workers takes issue with the interference by the chest authorities in their contractual relations with their employees. Loyalty came into question: should a social worker sign a petition for a political candidate? What is the area of relief for social agencies? At a national conference the struggle of the chest against the autonomy of local groups came out in clear-cut but unemotional terms and is to be continued in further conferences. Studies of the social distance between various welfare organizations and of the social distance between lawyers and social workers indicate an appreciation that the distances spoken of imply a lack of community integration at least in some measure.

A merger in Cleveland of Health Council, Red Cross Teaching Center, and Social Hygiene Association with the Association for Adult Education in a Division of Informal Adult Education of Cleveland College, illustrates the dissatisfaction with certain former community forms. In the field of foreign-language groups the urge toward an affiliation of fraternal societies became quite vocal and vigorous. On the other hand, the social agencies under Jewish auspices stressed Jewish culture and Jewish associations for Jews more than in previous years.

The rapid evolution of the rural community was shown in several studies. In one paper a thorough study of European villages was recommended in order that favorable characteristics might be incor-

porated in American rural neighborhoods, said by the author to be rapidly changing. Somewhat as a balance was the conclusion in one of the reports of Zimmerman and Corson that there is danger of undue effort to disturb the rural family organization.

REGIONALISM

Community organization and city planning took their subordinate places in the much discussed subject of regionalism that promises to maintain an "up stage" position for a few years to come in the discussions of adjustment of small and old social organization to the newer and larger industrial units. Warren S. Thompson in *Mercury* and Stuart Chase in *Harper's* announced that the city is turning out badly as a social unit both as regards satisfactory human association and efficiency; and must be reorganized as a part of a larger unit. For the rural community with its village and hinterland the idea is quite common today, and the year saw considerable discussion of methods of relating them in a "region" or "area." The studies of the regional plan of New York emerged from a city planning scheme into regionalism in the eyes of the public through the book by Duffus, *Mastering a Metropolis* and the proposals for the reclamation of the Jersey meadows. The regional concept was treated in scientific papers from the point of view of German and French development. At least one group in America has discussed planning on state and national bases, involving the social, economic, political, and cultural life of the areas involved.

EDUCATION AND COMMUNITY ENVIRONMENT

The relation of school and community became a matter of important discussion. The urbanization of the school was described in articles and the White House Conference on Child Health and Protection received reports from various committees recommending close relation between school authorities and community agencies as well as the home. A very close tie-up under educational leadership of all agencies dealing with the child was proposed for the summer by the Committee on the Vacation of the School Child. The Committee on Community Environment summarized the reliance of character-building agencies on community attitudes and recommended the fostering of planned communities. The report in-

cluded a study of the rapidly increasing real-estate or planned communities in the United States. A report to another of the committees concluded there are between eight and ten thousand community centers or houses in the country.

In Oregon effort was made to study the community organizations numbering one hundred to one hundred fifty that have sprung up in recent years, supposedly as an answer to overcommercialization.

STUDIES

The first issue of *Social Service Year Book* contained careful statements of the function and present importance of various forms of community organization. The study conducted in South Dakota of the Hutterische Communities furnished suggestive inquiries for the student of the modern community.

At the University of Cincinnati the study of the urban community included the preparation of a research tract map, making of spot maps for specific types of data, study of negro invasions into white areas, distribution of institutions, and transportation systems. The study of delinquency areas in Chicago by Shaw was discussed considerably in considering community influences. The citizen's associations in Washington were studied. The studies of various aspects of settlements in New York were continued. A study was made of a settlement in Cleveland and a radical hypothesis of change in settlement organization proposed to a sympathetic group including the leaders of settlements in Cleveland. In the same city a study was made of the trend toward the use of school buildings by settlements.

There was a great deal of consideration given to the study of group work and the effort made to reach a formulation of a technique analogous to that of the family case worker. Particularly was the work at Western Reserve watched with interest. There group records were kept in some detail and experiments made in the grouping of members of settlement clubs and of an experimental camp.

STUDIES AND REPORTS

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RURAL LIFE

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ABSTRACT

Rural life in the year 1930 was especially marked by the economic depression and the drought. The mechanization of farming which for some years has been in process was especially felt by virtue of a surplus of wheat being thrown on a world-market with a declining price. An automobile generation has come into societal participation in rural life only recently, which is making for a greater intensity in social change. Farm population increased in 1930, and the urban-rural flow was greater in some sections than the rural-urban current. The social organization of rural life is rapidly shifting from a locality basis to special-interest groupings, and this characteristic is becoming increasingly marked.

CATACLYSMIC EVENTS

The subject of social change in American rural life for 1930 is of exceedingly wide scope in space and subject matter but narrowly limited in time. This restriction forces the writer on the subject to confine himself to the most salient aspects and to give limited statistical evidence in support of generalizations. However, the year 1930 is likely to stand unique in the annals of rural change because it was marked by events of a cataclysmic nature and by the merging of tendencies noticeable for previous years. It is to the discussion of these events and tendencies noticeable in the year that this treatise is devoted.

The drop in prices of farm products and the drought smote the heart of rural America, and disregarding what rate of recovery may be, the consequences will reach well into the future. "Even in bad years 1930 stands unique."¹ The total production in crops in 1930 fell only 5 per cent below that of 1929 but the value was 28 per cent less, making a monetary drop of \$2,400,000,000 below that of the previous year. On December 1, 1930, the prices of the 21 principal farm crops averaged 100.2 per cent of the five-year pre-war average, compared with 131.1 per cent for the year before. Prices of farm products declined more rapidly than did those of the goods which the farmers have to buy.²

¹ *The Agricultural Situation*, monthly report of the United States Department of Agriculture, January 1, 1931.

The depression of 1920-21 caused the prices of farm products to turn violently downward making a wide disparity between the prosperity of the country and the city. Though some recovery for the farmer's prices was experienced during the intervening decade, the business slump of 1930 wiped out all this advance and prices started falling violently to levels the lowness of which multitudes of the present-day farmers have not previously known. The situation of the farmer prevents him from buying the factory products, and in turn the workers dependent on the factories cannot buy from the farmer. Whether or not this whole maladjustment is part of the process of lessening the disparity in price levels between farm and factory it is impossible to say because factors seem to be working that have not been prevalent in previous agricultural depressions. The recovery for both urban and rural interests was coexistent following the depression of 1873 and in the process price levels of the two groups came near together. Today, machinery for farms, and relatively widely variant demands for both farm and factory goods make possible the re-establishment of an equilibrium on new levels between agriculture and manufacturing. This will force wide readjustments in agriculture, and if we may judge from the last few years agriculture must also constantly make adjustments to a dynamic society. These remarks lead to only one generalization; 1930, as a crisis year, may become outstanding in the judgment of the economic historian of the future, by very definite changes and trends, marking the beginning of new forms in economic and social organization due to the pressure of new techniques and methods of living.

The hardships common to both industry and agriculture necessitate a common solution of the common problems, the portent of which has been the lessening of the rabid conflicts between rural and urban groups. This process is not an immediate result of the depression but has come gradually, growing less severe between the villagers and countrymen since the year 1922 and immediately following. The farmers shortly after the disappointments of their early reverses perceived that the merchants were not deliberate tricksters but were in an economic web equally precarious with themselves. The toleration and understanding has apparently spread from the

small centers to the urban society and Wall Street is no longer the personified cause of economic ills. This statement is from a more or less general observation but it is a hypothesis for consideration in any analysis of the rural-urban relationships involved in the economic conditions of 1930.

The drought added to the economic depression, intensifying the grievous difficulties prevalent, and making the problem one of survival instead of merely losing farms in some localities. By the close of 1930 relief in some form had been given to the twenty-one following states: Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Texas, Alabama, Georgia, Illinois, Indiana, Maryland, Missouri, Montana, New Mexico, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wyoming. These states have a total of 1,848 counties of which 1,016 had been so affected that reduced freight rates had been extended to them. During the fall of 1930 the Red Cross sent seed to 238 counties scattered in the states of Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, and Texas. At the same time food was supplied to the worst affected areas in Arkansas and Kentucky.²

The drought has affected an area much wider than that which the figures indicate. Though the seriousness might not have been the same in other counties of the states mentioned or in other states its reaches have been widespread and the consequences will not be encompassed by these particular county or state lines.

Figures showing the comparative extent of the drought will give concreteness to the difficulty. The rural population of these twenty-one states totals approximately 34,000,000 or over 60 per cent of the rural population of the United States. This rural population, excepting in a very few of these states, is agricultural, being composed of farmers or those directly dependent on farmers. Since the census figures on the farm population are not yet available it is impossible to state exactly the number of farm people affected, but it looks like one-half to two-thirds of the farm population are involved.³

² DeWitt Smith, "Drought Relief; The First Phase," *Red Cross Courier*, January 1, 1931.

³ Space does not permit the discussion of the sociology of a crisis, and the effects of one of this nature can be measured only after the passing of considerable time.

SOME SPECIAL INFLUENCES

Certain trends noticeable previous to 1930 became of epochal consequence during the year. The production and marketing of wheat reached a crucial stage owing to the rapid increase in the decade prior to 1930 and the coming of Russia, in a rather uncertain manner, into the competition of the world market. "The area sown in southwestern winter wheat states increased approximately 4,000,000 acres from 1924 to 1929. During the same period the area in Canada, Argentine, and Australia combined increased 10,000,000 acres."⁴ "Russia continues to be a very important factor in the wheat market. Reports of shipments from the first of July into the second week of October total about 25,000,000 bushels. This is more than twice the amount shipped in the corresponding period of the 1926-27 season when the total exports amounted to about 49,000,000 bushels. . . . Uncertainty as to how much Russia may ship is probably more important at the present time than the actual volume of the shipments."⁵

The precarious situation of wheat had its counteraction in the wheat-growing areas. A specific example tells something of the story. The dry-land farming region of eastern Colorado is one section where wheat acreage was expanded, its grazing land being put under cultivation. During the summer of 1930 the writer found one county in this region in which land that a few years ago sold for \$25.00 an acre was being resold for grazing for \$2.50 an acre. In a county-seat village there stood a fine Catholic school building and a Methodist church of exceedingly beautiful design and architecture. The Catholic school was closed and the prospects were that the Catholic church which stood near-by would soon cease having services because over one-half of the parishioners had moved away and the remainder were in a very poor financial condition. The Methodist organization was struggling with a heavy debt, and the minister was more anxious to leave than to aid in lifting the burden from the backs of his congregation.

⁴ *The World Wheat Outlook, 1930, and Facts Farmers Should Consider*, U.S. Department of Agriculture, Miscellaneous Publication No. 95, August, 1930.

⁵ *World Wheat Prospects*, Bureau of Agricultural Economics, U.S. Department of Agriculture, WH-54, October 21, 1930.

The year 1930 stands at the end of a decade marked by the rapid mechanization of farming. The number of combines, which affords an example of this phenomenon, sold in the United States in 1923 was 1,099; in 1926, 6,277; and in 1929, 19,666.⁶ With conditions as they have been during the year of 1930 these twelve months seem to have stood in the midst of a deciding period respecting whether rural life is to be completely mechanized and industrialized or the unity of the farm home, farm family, and home-ownership ideal to remain paramount.

POPULATION SHIFTS

Population shifts, from a sociologist's standpoint, have two special interests: the change in social control, and migrations.

Young men and women who cannot remember the pre-automobile days came into the picture of social organization in rural life within the last year in so far as such is possible within a twelve months' period. Their habits are not bound to the old neighborhood store, local church, village center, or some special locality group because the automobile has made it possible for them to form numerous connections outside their immediate vicinity. Furthermore, many of them have gone to high school at the county-seat town or at some distance from their home and by so doing they have forgotten the old family locality loyalty. Henceforth the automobile generations will help determine the policies for rural schools, rural churches, rural organizations, and other aspects of rural welfare.

The decade ending in 1930 was notable for the livid flow of population from the farms and rural centers, the phenomenon having spread to every part of the Union. Indeed, this flow began in the sixties in New England and for the farm population spread over the whole of the United States.

The flow of population from the farms in 1930 was reversed in some sections and the net result of the two-way flow almost balanced in other sections. Adding the excess of births over deaths to the farm population of 1929 there was an actual increase of farm population in 1930. The net movement away was 151,000 but the normal increase by births over deaths was 359,000 leaving a larger farm pop-

⁶ *The World Wheat Outlook, 1930*, etc., *op. cit.*

ulation of 208,000 at the close than at the beginning of the year. Farm population gained for the first time in ten years, the movement from the farms was the smallest for any year since 1922, the first year for which information of this kind became available, and in part of the sections the flow from the cities was greater than the flow to them. The movement from the cities to the farms was greater than the reverse migration in the Middle Atlantic, East North Central, and East South Central states, while in the other sections more left the farms than returned but the excess was not so great as previously.⁷

One phase of the back-to-the-land movement has been the building of country homes by city workers, which has been especially prevalent for the past few years in the industrial sections of the Northeast and near large urban centers in other parts of the country. The situation in Massachusetts affords a good example where a study of it has been made.

Of the total number of operators interviewed in Lowell and Taunton areas (115 and 84, respectively), only seven were regular farmers before they began to practice agriculture on a part-time basis. . . . The present part-time farmers in the industrialized areas come largely from the urban elements of population. . . . From the survey of 820 houses in Holden, it was found that 585 families living in the same number of dwellings were engaged in some farming on their land holdings. . . . Only 66 or a little over 11 per cent were bona fide farmers. The rest devoted only part of their time to farming, getting an additional income from outside employment or some other source.⁸

SHIFT IN SOCIAL ORGANIZATION

Change in the social organization of rural life cannot be measured in terms of one year but owing to the pressure of the economic crisis and the hardships of the drought it seems probable that, some decades hence, 1930 may be regarded as the focal point in a transitory social structure. Certain tendencies are likely to be accentuated while others retarded through the stimuli of adverse conditions and the attendant reorganization of rural society in accordance with our means of rapid transportation.

⁷ Release from the Office of Information, U.S. Department of Agriculture, February 19, 1931.

⁸ David Rozman, *Part-Time Farming in Massachusetts*, Massachusetts Agricultural Experiment Station, Bulletin No. 266, 1930.

A tendency which seems to have become general over the whole of the United States is the decline in population and relative importance of the small agricultural village. It started in the East some decades ago⁹ and the movement has spread westward. "Of the 500 incorporated villages [in Iowa] under 500 in population, 199 gained a total population of 7,001, while the remaining lost 12,077"¹⁰ between 1920 and 1930. Of the ten villages scattered in California, Colorado, Nebraska, and Iowa varying in size from about 700 to 2,900 the vacant stores ranged from 2 to 14, the largest number being in a village of 1,165 in the raisin-growing section of California.¹¹

Villages sufficiently near cities to feel their keen competition are no longer the centers for farm population though they may continue to render certain types and limited services. The polarity of rural life is in marked transition from the small to the larger centers, and it is impossible to predict the structure in which the polarity-equilibrium may be re-established.

The shifting of polarity marks the disintegration of the old community and neighborhood¹² and the reorganization of rural life about special interests and more or less on stratified lines. An excellent example of the successful organization of special interest groups is the Farm Bureau of Iowa. It is organized on a township basis, no attention being paid to the old community boundaries; the natural community basis about which the rural sociologists have said much plays a very little part in the success of this farmers' organization. Of course, in some cases, the community boundaries and the township lines coincide but that is the exception and not the rule. The

⁹ Clayton A. Burdick, "Rural Wreckage in New England," *New England Magazine*, Vol. XLVII, No. 1, March, 1912.

¹⁰ William L. Harter and R. E. Stewart, *The Population of Iowa, Its Composition and Change*, Agricultural Experiment Station, Iowa State College of Agriculture and Mechanic Arts, Bulletin No. 275.

¹¹ The writer studied villages and churches for the Institute of Social and Religious Research in these four states during the summer of 1930, and in writing this article is deeply indebted to this organization.

¹² For discussion of the neighborhoods of the past see *Rural Primary Groups* by J. H. Kolb, Agricultural Experiment Station, University of Wisconsin, Research Bulletin 51 (1921). .

fact that a community organization and a farm bureau both succeed within overlapping territory and dissimilarity in the boundary lines testifies to the special interest groupings.

The year 1930 marks a stage in rural life where stratification is marked in many sections. If, as in the case of New York, migration has been heavy this aspect has evolved in the process of population shifting. Economic factors and the traditions of the old families seem to be the accompanying conditions in the old sections. On the other hand regions like California have it well marked by racial groupings. The democracy born in a rural society, nurtured through pride of place and occupation, and forming a dominating tradition in farm life seems to be passing with the increasing stratification. One man is no longer as good as another, and social intercourse is coming to be governed by defined groups and not through living close together. This stratification is not controlled by title or law, but the tastes, interests, economic status, and educational attainment all contribute to making it real.

CONCLUSION

In writing this article the author has realized that it should serve various functions in accordance with the particular annual volume in which it is printed and the different interests of the readers. In order that it might be a record of certain changes a collection of facts have been presented, in order that it might indicate changes in process a few tendencies probably more or less obvious have been discussed, and in order that it might further interest in rural life both for the professional worker and the casual observer suggestions which may not always have the general support of generally recognized facts have been made.

THE FAMILY¹

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ABSTRACT

Outwardly it has been an uneventful year in the history of the American family with the exception of the White House Conference and the establishment of the first matrimonial clinic. There is evidence of an increasing control in parental and sex education and of a greater protest against contemporary mores and law, especially with regard to divorce and the use of contraceptives. The activities of the Roman Catholic church to conserve family life were given impetus by the encyclical of Pope Pius XI issued at the close of the year. The major problem has been family relief on account of industrial depression and unemployment.

TRENDS

The history of the family for 1930 appears on the surface to be an uneventful one. Nothing striking has happened in organization, legislation, or even agitation. One gathers the impression, however, that it has been an important year in which more constructive activities have occurred than for several years past. There has been an increase in the interest in parental education, especially on the part of high-school teachers. Courses on the family in colleges have been strengthened, and their popularity appears to have increased among students in home economics departments and sociology.

Testimony is given by specialists near to the problem that there has been a marked increase in sex instruction. This has not been confined to problems of childhood, for the needs of the adolescent and the adult have had some recognition. It is significant that the interest of churches in sex education has slightly increased and that experiments in preparing for matrimony are being made.

The meeting of the problem of unemployment referred to in the report for 1929 became in 1930 the major activity of the charitable organizations.

STATISTICS

The most important statistical study of the family has been made by Professors Dwight Sanderson and Harold F. Dorn, of Cornell University, who prepared for the White House Conference an in-

¹ The author wishes to thank correspondents who have reported material from their various sections and especially to register his appreciation of the valuable service of Miss Flora Thurston, of the National Council for Parental Education, and the assistance of Miss Ina V. Young, Research Associate, University of North Carolina.

vestigation, "The Relation of Density and Aggregation of Population to the Family." The results of this study show that for almost every phase of family life the larger the community the less favorable is the situation for the family. The authors contend, however, that since the city family has assets as well as liabilities, we must assume that the family as an institution is being forced to change to meet a new environmental situation. This investigation will be published at Washington.

ORGANIZATION

One of the most significant things that has happened in the history of the American family was the organization of the Institute of Family Relations by Paul Popenoe, at Los Angeles, California. The following classification shows the nature of the problems presented by the first five hundred clients of this Institute:

Educational.....	146
Family maladjustment	129
Miscellaneous.....	79
Premarital.....	43
Heredity.....	35
Sex problems	31
Child welfare.....	30
Legal.....	7
	500

Ohio State University and the University of Cincinnati have extended their work in parental education. Parent and sex education have been emphasized by the University of Minnesota and the American Social Hygiene Association. The National Council of the Y.M.C.A. has also extended its program of parent and sex education. The International Congress on Mental Hygiene, held at Washington, stressed topics of great importance of family welfare, while the White House Conference held in November was the most significant gathering of persons interested in children and the family ever held in America.

Social Forces inaugurated during the year a department devoted to marriage and the family.

Under the stimulus of Dr. William S. Keller was held the seventh summer session of the Department of Social Service, Diocese of

Southern Ohio Protestant Episcopal Church, as a training clinic for modern pastoral service.

In March a movement was inaugurated at Cleveland, Ohio, to organize a divorce-prevention clinic for the handling of domestic relations problems.

An interesting development in some of the more progressive churches has been the establishment of matrimonial service, frequently called a "marriage clinic." Usually instruction in the applications of marriage is the chief function of these organizations. The Old Stone Church at Cleveland is an example.

During the year the twelfth birth-control clinic was established by the Los Angeles County Health Department. These are said to be the only clinics of the kind in the United States that are integral parts of the public department of health.

From California comes also the statement that there has been a marked trend toward the establishment of home-making classes for boys in the high schools.

AGITATION

The need of more opportunities for the establishment of social relationships between young people in the cities interested in the possibility of marriage is being felt by students of the urban families. To meet this problem in some cities an effort at co-operation is being made by the Y.M.C.A.'s and the Y.W.C.A.'s.

Some church members propose that there be a double marriage ceremony: the first to be performed secularly before a public official, and the second by a minister for those who desire it and who by it attest their religious interest.

One of the most significant events of 1930 has been the disregarding of conventional taboos of the discussion of venereal diseases by newspapers on the part of the *News Sentinel* of Knoxville, Tennessee, a Scripps-Howard paper. The usual vague phraseology was replaced by the frank use of "venereal disease." This unusual policy met with little criticism and much approval.

The popularizing of knowledge of birth control has continued throughout the year, and there has been an increased agitation for the repeal of restrictive laws, especially as they relate to the doctor's right to give contraceptive information.

LEGISLATION

Legislatures of few of the states met during the year. In Louisiana important legislation concerning the family was the passage of the Child's Aid bill. It was enacted that aid granted should be sufficient with other income to enable mothers to care for their children in their own homes.

Unquestionably, no part of law is more lagging behind social experience than that relating to familial experience. This is particularly true with reference to divorce legislation. American practice and the theory of American law are far apart.

With the beginning of 1931 legislation influencing family life has been introduced in many state legislatures. The year 1931 promises to register some of the pressure that the mores are exerting against statutory law.

Mrs. Ruth Bryan Owen, in December, introduced into Congress a bill to establish an executive department to be known as the Department of the Home and the Child, to promote and foster education, home and family life, and child welfare.

THE ROMAN CATHOLIC CHURCH AND THE FAMILY

There is considerable evidence of increased activity on the part of the Catholic church in matters pertaining to marriage, parent education, and family life generally.

The appearance of the first Catholic textbook on the family, *An Introductory Study of the Family*, by Schmiedeler, designed especially for use in Catholic higher schools, has paved the way for more attention to this subject in the Catholic school system.

The *leit motif* of the National Convention of the National Council of Catholic Women (at Denver) was the family. The convention resolutions called for a vigorous campaign of resistance against attacks on the Christian ideal of the family, a constructive program of family education, including character education, parent education, and pre-parental training, and the appointment of a nation-wide committee to undertake an intensive study of the subject of family education.

The various activities of the church to conserve family life were given tremendous impetus by the encyclical (*Casti connubii*, "Of

Chaste Wedlock") of Pius XI issued at the very end of the year. This document apparently received more immediate attention in this country than any papal pronouncement ever made. It is a powerful restatement of the traditional stand of the church on matters of faith and morals in the field of marriage and the family, an unmistakable reiteration of the unalterable stand of the church on such matters as divorce, birth control, and experimental marriage. In the following mention is made of a number of points that are apparently stressed as among the more important:²

Matrimony is a divine institution, not of human origin.

Among the blessings of marriage the child holds the first place. The rearing of the child is a parental duty.

Conjugal faith is mentioned as another blessing of marriage. The term means marital chastity and mutual love and respect. Abuses of this blessing, such as artificial limitation of the family, are condemned as "hateful abominations."

Matrimony is a sacrament; the bond of marriage indissoluble. Under certain circumstances, however, a separation is permissible.

A proper understanding of matrimony, by way of preparation for the married state, is proclaimed essential.

The dangers of mixed marriages are warned against.

The husband is head of the home; the wife is in no sense a minor but a companion of the husband having all the rights which belong to the dignity of a human being. The public authority should adapt the civil rights of women to modern needs.

Abortion is condemned. Referring to sterilization, it is pointed out that when there is no crime presenting cause for grave punishment, the state "can never directly harm or tamper with the integrity of the body, either for reason of eugenics or for any other reason."

Both spiritual and civil remedies for the abuses of marriage are suggested. Among the spiritual are mentioned true humility, personal sanctity through the frequentation of the sacraments, a proper understanding of the sacrament of matrimony and adequate preparation for its reception. Among the civil remedies are mentioned help for those in need and greater conformity between civil and ecclesiastical law with regard to marriage.

² Summarized by Rev. Edgar Schmiedeler, Atchison, Kan.

PUBLICATIONS

During the year there has been a great deal of material published relating to problems of the family. Paul Popenoe has published a study of happiness in one thousand marriages of educated people, and Mrs. Chase Going Woodhouse has published her study on successful marriage. The Presbyterian church, to stimulate interest in the family, has edited a book entitled *Twenty-four Views of Marriage*.

STUDIES

The Social Science Research Council assigned fellowships to prepare scholars for family-adjustment work.

The Child Welfare Survey of South Carolina, under the auspices of the American Legion and the American Legion Auxiliary, was completed.

Other studies finished or in the process are:

HELEN BERNARD. *Social Relations of 200 Families Served by a Case Work Agency*. Kansas, 1931.

WILLIAM PAUL CARTER. *The Only Child: A Sociological Study of Certain Family Relationships*. Chicago, 1930.

JOHN DOLLARD. *The Changing Functions of the American Family*. Chicago, 1931.

EDWARD FRANKLIN FRAZIER. *The Negro Family in Chicago*. Chicago, 1930.

WAYNE GRAY. *Measuring the Farm Family's Standard of Life by Its Sparetime Activities and Expenditures*. Wisconsin, 1930.

JOHN WARWICK INNES. *Causes of the Decline in the Birth-Rates in Western and Northern Europe and the United States*. Columbia, 1933.

W. R. P. IRELAND. *Rooming-House Life in the Lower North Side*. Chicago.

RUTH LINDQUIST. *A Study of Home Management in Relation to Child Development*. North Carolina.

CHARLES ROBERT METZ. *A Study of Marriage and Divorce in Indiana*. Indiana.

CLIFFORD R. SHAW. *Family Background in Male Juvenile Delinquency*. Chicago.

MAUD WATSON. *The Emotional Maladjustments of Parents as Reflected in Personality Problems of Children*. New York University School of Education.

ROBERT S. WILSON. *Transient Families*. Kansas.

DOROTHY BARKER. *The Value to Family Case Work of Individualizing the Child*. Western Reserve, School of Applied Social Science.

DORIS ELLA BEMIS. *A Comparison of the Legislation of Nebraska Concerning the Political, Social and Economic Status of Women and That of a Selected Group of Other States*. Nebraska.

LEILA M. BENEDICT. *Desertion and Non-support as Factors in Dependency of 1,000 Cases Relieved by the Boston Department of Public Welfare, 1923-29.* Simmons School of Social Work.

SARAH BENEDICT. *Evaluation of Treatment Methods for Cases of Domestic Difficulty.* Western Reserve, School of Applied Social Sciences.

ELMA BISHOP. *An Analysis of Behavior Exhibited in the Family by Man and Wife When the Man Works Full Time and the Woman is Employed outside the Home at Least Two Days a Week.* Western Reserve, School of Applied Social Sciences.

HAZEL W. BRIDGES. *Maternity Services of the Boston City Hospital in 1929.* Simmons School of Social Work.

LILLIAN P. BRINTON. "Keeping Time"—the Homemaker's Use of Time and Management of Homemaking Processes. North Carolina.

HARRIET K. BROOKS. *Pregnant Women in Families Relieved by the Boston Department of Public Welfare, 1923-29.* Simmons School of Social Work.

RUTH S. BRUSH. *A Study of the Women's Organizations in a Connecticut Town.* Columbia.

OLIVER BUTTERFIELD. *The Social Effects of the California Law Which Requires That Three Days Must Elapse between the Application for and the Granting of a Marriage License.* Southern California.

MARIAN H. CANGNEY. *Recreation within the Family as a Possible Aid in Case Treatment.* Western Reserve, School of Applied Social Sciences.

CAROL G. CARSON. *Sick Children in Families Relieved by the Boston Department of Public Welfare, 1923-29.* Simmons School of Social Work.

EVELYN COPE. *A Study of Parent Education.* Kansas.

CATHERINE DENISON. *The Family Deserter.* Western Reserve, School of Applied Social Sciences.

ELEANOR D. GOLTZ. *Dependent Families and the Chicago Housing Problem.* Chicago, Graduate School of Social Service Administration.

MARY E. GRIFFING. *A Study of Rural Woman in China.* Cornell.

FRANK L. GROAT. *Comparison of Scholarship and Socialization of Intermediate School Students from Broken and Unbroken Homes.* Michigan State College.

MARTHA HAYGOOD HALL. *A Study of the Nursemaid.* Chicago.

CECILIA M. HARTMAN. *An Evaluation of Case Treatment of Fifty Widowers' Families.* Western Reserve, School of Applied Social Sciences.

M. PAULINE HILL. *Methods by Which the Family Case Worker Establishes Report with Individual Members of Families.* Western Reserve, School of Applied Social Sciences.

JOHN FRANKLIN HOWELL. *Effects of Divorce upon the Children.* Texas.

ELDA KANALLY. *The Social Adjustment in the Homes of Relatives of Children with Institutional Experience.* Western Reserve, School of Applied Social Sciences.

MARY ALICE KENDRICK. *A Study of Dependency among the Families of Certain Prisoners of the Illinois State Penitentiary at Joliet.* Northwestern.

CLAUDIA LIEBENTHAL. *Some Relationships between Financial Dependency and Large Families*. Western Reserve, School of Applied Social Sciences.

LOIS McVEY. *A Case Study of 100 American and Foreignborn Families Known to the Cleveland Associated Charities in 1920-28*. Western Reserve, School of Applied Social Sciences.

MARY NICOLLS. *A Study of Rural Family Relations with Special Reference to Methodology*. Wisconsin.

LUCILE WRIGHT PLOUGHE. *Parental Control in Primitive Society*. New York University, Graduate School.

VOCILLE PRATT. *A Study of Families Eligible for Mothers' Pension*, Western Reserve, School of Applied Social Sciences.

ANNE L. PUJOS. *An Analysis of the Depiction of Family Life in Selected English Novels of the Twentieth Century*. Southern California.

IRVING FREDERICK REICHERT. *An Outline of the History of Marriage in Israel*. Columbia.

VARINA MOORE RHODES. *A Study of Privileged Families in Piedmont, Virginia*. Virginia.

JANET STOREY. *Socio-psychiatric Factors Involved in the Parent-Child Relationship When the Child Is Adopted*. Western Reserve, School of Applied Social Sciences.

HELEN E. STRAUS. *The History of Professional and Non-professional Jewish Relief Societies in Cleveland Dealing with Problems in the Family*. Western Reserve, School of Applied Social Sciences.

THOMAS LESTER SWANDER. *Sociological Data in Family Case Records*. Kansas.

ARTHUR H. THOMPSON. *Effect of Broken Homes on the Scholarship and Socialization of Intermediate School Students*. Michigan State College.

PAULINE THROWER. *Laws of Oklahoma with Reference to the Parent-Child Relationship*. Chicago, Graduate School of Social Service Administration.

CONSTANCE TYLER. *A Study of 184 Families Receiving Mothers' Aid from the Boston Department of Public Welfare, 1923-29*. Simmons, School of Social Work.

GERTRUDE VAILE. *Some Problems of Family Social Work in Rural Communities*. North Carolina.

DOROTHEA VARNTZ. *The Treatment by a Family Case Worker of Families in Which There Is Physical Disability*. Western Reserve, School of Applied Social Sciences.

HELEN GRIFFIN WOOLBERT. *Social Philosophy as a Function of Father-Son Relationship*. Chicago.

AUDREY WRIGHT. *A Study of the Unmarried Mother*. Chicago.

THE MORE IMPORTANT CONFERENCES
HELD DURING THE YEAR

JAN. 23-25. Annual Conference, National Board of Review of Motion Pictures, New York City.

JAN. 17-18. Annual Meeting, American Social Hygiene Association, New York City.

JAN. 17-18. New York State Conference of Heads of College Home Economics Departments, Cornell, Ithaca, N.Y.

JAN. 15-18. Second West Coast Conference on Progressive Education, Pasadena, Calif.

JAN. 3-4. Eastern Regional Conference of Child Welfare League, Philadelphia, Pa.

FEB. 25-27. Eastern State Extension Conference, Boston, Mass.

FEB. 23-27. National Education Association, Department of Superintendence, Atlantic City, N.J.

FEB. 21. Conference of Ohio Congress of Parents and Teachers, Ohio State University, Columbus, Ohio.

FEB. 14. Fourth Anniversary Conference of Parents' Council, Philadelphia, Pa.

FEB. 10-15. Homemakers' Farm and Home Week, New York, State College of Home Economics, Cornell, Ithaca, N.Y.

MAR. 27-28. Indiana State Conference of Home Economics, Home Economics College Teachers Association.

MAR. 17-20. Annual Conference in Home Economics Education Called by Federal Board for North Atlantic Region, New York City.

MAR. 11. New York Conference on Adult Education, New York City.

MAR. Institute of the State Department of Health, Augusta, Me.

APR. 3-5. Tenth Annual Conference, Progressive Education Association, Washington, D.C.

MAY 19-23. Annual Meeting, National Congress of Parents and Teachers, Denver, Colo.

MAY 12-15. American Association for Adult Education, Fifth Annual Meeting, Chicago, Ill.

MAY 5-10. First International Congress on Mental Hygiene, Washington, D.C.

JUNE 16-21. Sixth Health Education Conference of the American Child Health Association, Sayville, L.I.

JUNE 24-28. Annual Meeting, American Home Economics Association, Denver, Colo.

JUNE 28-JULY 4. National Education Association Conference, Columbus, Ohio.

AUG. 4-7. Fourth International Congress of Education of the Family, Liége, Belgium.

AUG. 6-22. Second Women's Conference, Pan-Pacific Union, Honolulu, T.H.

Oct. 20-22. Bureau of Child Development and Parent Education, Oklahoma City, Okla.

Oct. 20-23. Child Study Association Conference, New York City.

Nov. 17-19. Land Grant College Association, Washington, D.C.

Nov. 15, 17, 18. National Council of Parent Education, Second Biennial Conference, Washington, D.C.

Nov. 19-22. White House Conference on Child Health and Protection, Washington, D.C.

THE CHILD

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ABSTRACT

The year 1930 was marked by an event of great significance for the well-being of children, namely, the White House Conference on Child Health and Protection. This will be discussed following the presentation of certain facts regarding vital statistics, numbers and age distribution of children. Many important developments regarding children such as activities of child clinics, day nurseries, etc., are omitted because yearly data are not available. Following these discussions will be presented other important events of the year affecting children.

VITAL STATISTICS

The latest official reports are for the year 1928 with a few preliminary figures for 1929. The crude birth-rate in 1928 was 19.7, registering a decline of 0.9 from the 1927 figures. The preliminary

TABLE I*

BIRTH-RATE FOR REGISTRATION AREA OF THE UNITED STATES, 1920-29

Year	Births per 1,000 pop.
1929†.....	18.9
1928.....	19.7
1927.....	20.6
1926.....	20.6
1925.....	21.4
1924.....	22.6
1923.....	22.4
1922.....	22.5
1921.....	24.3
1920.....	23.7

* *Birth, Stillbirth, and Infant Mortality Statistics* (Bureau of Census, 1928), p. 4.

† *U.S. Public Health Bulletin*, Nov. 7, 1930, p. 2757.

figures for 1929 indicate a birth-rate of 18.9, or a decline of 0.8 from 1928. In the ten years 1920-29 inclusive the birth-rate has fallen from 23.7 to 18.9, a total decline of 4.8. In Table I are given the figures for the ten-year period 1920-29 for the birth-registration area of the United States, which in 1928 comprised forty-four states and the District of Columbia, with an estimated population of 94.4 per cent of the Continental United States.

The official reports for 1928 give an infant-mortality rate (number of deaths per 1,000 livebirths) as 69, or 4 points higher than the low record of 1927. The preliminary reports for 1929 indicate a rate of 68, which forecasts a decline of 18 points since 1920 when the rate was 86. This reduction in infant mortality has been principally in the deaths from digestive disorders, reflecting the increasing efforts to protect the infant by maternal education, control of milk, and general sanitary supervision. No such decline has been achieved in neonatal mortality, which has fallen from 19.4 in 1920 to only 17.8 in 1928.

TABLE II*

INFANT-MORTALITY FIGURES FOR REGISTRATION AREA
OF THE UNITED STATES, 1920-29

Year	Infant Mortality per 1,000 Live- births	Deaths Due to Digestive Disorders	Neonatal Mortality	Infant-Mortality Ratio of Male to Female per 1,000
1929†.....	68	.....	.....	.....
1928.....	69	7.4	17.8	1,332
1927.....	65	7.8	16.8	1,325
1926.....	73	9.7	17.7	1,317
1925.....	72	11.2	17.2	1,332
1924.....	71	9.2	17.2	1,331
1923.....	77	11.5	17.8	1,306
1922.....	76	11.7	18.1	1,327
1921.....	76	13.5	17.9	1,314
1920.....	86	14.9	19.4	1,322

* *Birth, Stillbirth and Infant Mortality Statistics* (Bureau of Census, 1920-28 inclusive).

† *U.S. Public Health Bull.*, Nov. 7, 1930, p. 2757.

In Table II will be seen how infant mortality has been reduced but with no appreciable reduction in the heavier incidence of male deaths, although the stillbirths of males appears to be falling. This disproportionate incidence of stillbirths, deaths, and (as we are now discovering) rickets upon the male sex merits much more attention than it has heretofore received. If, as recent studies by Dublin and Lotka and by Thompson and Whelton indicate, the rate of natural increase is practically zero, despite the temporary excess of births over deaths, this persistent handicap to males may have important social consequences which we have scarcely begun to explore.

The mortality figures for children for 1928 show that the percentage of total deaths under one year has declined from 20.7 in 1900

to 11.3 in 1928, and for those under five the decline has been from 30.4 in 1900 to 15.7 in 1928. Of the causes of death among children of school age accidents continue to lead, while the old scourges of communicable diseases, such as diphtheria, scarlet fever, tuberculosis, are beginning to yield to the systematic efforts to combat their occurrence and severity.

No discussion of births and infant mortality can ignore the mortality associated with child-bearing. The year 1928¹ showed an increase from 6.5 (1927) to 6.9, and the preliminary figures for 1929² indicate a rate of 7 deaths of mothers per 1,000 livebirths. While there are some difficulties with these figures, the situation is a serious one, both as a medical problem and as a social condition. The available figures indicate a higher rate for urban than rural maternal mortality, and a higher rate for mothers under twenty than those between twenty and twenty-nine years, although the rates for mothers thirty to thirty-nine years were higher than for mothers twenty to twenty-nine years of age.

Attention should be given, in this connection, to the apparent changes in the ages of women bearing children since 1921. The distribution of births per 1,000 by age of the mother for the years 1921-28 indicates an increase in the ages ten to fourteen, fifteen to nineteen, and twenty to twenty-four, with a decrease in the ages twenty-five to twenty-nine and thirty to thirty-four. This would suggest that the child-bearing of the country, while declining in frequency as shown by the fall in the crude birth-rate, is shifting to a relatively younger group of women, as shown by the accompanying table. In other words, child-bearing may be starting earlier and ceasing earlier than formerly, with a consequent shifting in the focus of family life as well as a reduction in the size of families. Both of these factors may be of great significance to children and exert considerable influence upon their development as biological organisms and as personalities.

The resultant of these changing birth-rates and infant-mortality rates is to be observed in the age and sex distribution of the population, especially the child population under nineteen. A study of

¹ *Mortality Statistics* (Bureau of Census, 1928), Table L, p. 12.

² *U.S. Public Health Bull.*, Nov. 21, 1930, p. 2880.

Table IV, showing the percentage of the total population in the five age groups for the years 1900, 1910, and 1920, shows the drift of affairs.

TABLE III*

**DISTRIBUTION OF BIRTHS PER 1,000 BY AGE OF MOTHER
FOR BIRTH-REGISTRATION AREA OF THE
UNITED STATES, 1921-28**

Age of Mother	1928	1927	1926	1925	1924	1923	1922	1921
10-14.....	1.3	1.2	0.9	0.9	0.9	0.8	...	0.7
15-19.....	119.0	113.6	103.9	101.5	99.0	93.1	...	91.9
20-24.....	288.7	282.4	276.8	273.4	275.6	270.9	...	260.4
25-29.....	249.3	252.0	258.4	261.4	261.7	268.8	...	267.7
30-34.....	176.1	181.7	188.3	189.0	188.6	189.3	...	182.3
35-39.....	112.6	114.8	115.5	116.3	115.9	116.8	...	114.8
40-44.....	37.4	37.8	38.3	38.7	38.5	38.4	...	38.2
45-49.....	3.6	3.5	3.7	3.7	3.6	3.7	...	3.9
50-54.....	0.1	0.1	0.1	0.1	0.1	0.1	...	0.1
55 and over.....	...	...	...	...	...	...	...	...
Unknown.....	12.0	12.0	14.0	15.0	16.1	18.1	...	30.9
Total.....	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

* *Birth, Stillbirth, and Infant Mortality Statistics* (Bureau of Census, 1921-28, inclusive).

TABLE IV*

**PERCENTAGE DISTRIBUTION OF POPULATION BY AGE GROUPS,
UNDER NINETEEN YEARS, BIRTH-REGISTRATION AREA OF
THE UNITED STATES, 1900, 1910, 1920**

Male and Female—Years	1920	1910	1900
Under 1.....	2.1	2.4	2.5
Under 5..	10.9	11.6	12.1
5-9.....	10.8	10.6	11.7
10-14..	10.1	9.9	10.6
15-19.	8.9	9.9	9.9
Total under 19 ..	42.8	44.4	46.8

* *Population Statistics* (Bureau of Census, 1900, 1910, 1920).

The largest decrease is in the age group under five, which fell from 12.1 per cent of total population in 1900 to 11.6 in 1910, a drop of 0.5, and then to 10.9 in 1920, or a further drop of 0.7 in ten years. Since the fall in the birth-rate since 1920 has been greater than in the decade 1910-20, it is probable that the 1930 figures will show a decline in the age group under five to something well under

10 per cent. Dublin's calculation for a stationary population indicates a child population under five of approximately 7.2 per cent, so that the forthcoming census report of the age and sex distribution for 1930 will show just how far we have gone toward that condition.

The social adjustments which this continuing reduction in the child population will necessitate are just beginning to receive attention, and it is safe to predict that before long they will become the focus of discussion not only for child welfare but for social welfare generally.

THE WHITE HOUSE CONFERENCE

The year 1930 was marked by a number of events of considerable import for children. Outstanding among these was the White House Conference on Child Health and Protection³ which President Hoover called in November, 1930, as the third in the series initiated by President Roosevelt in 1909. The Conference was organized in four main divisions or sections:

- I. Medical Service
- II. Public Health Service and Administration
- III. Education and Training
- IV. The Handicapped: Prevention, Maintenance, Protection

For each section there was a main committee appointed, with a number of subcommittees, to investigate and report upon the principal questions affecting the well-being of children in each of these broad areas. Only the general summary and preliminary reports of these various groups are available at this writing, so that comments upon the Conference must be limited to the more general aspects of the reports presented in November.

Perhaps the most generally significant aspect of the Conference is the evidence it gives that child welfare is ceasing to be a program of specific activities and services for a group of disadvantaged children and is emerging as a goal of social endeavor, to be sought through many complex changes and adjustments. This point appears in the discussion of questions far removed from actual, direct contact with children. To illustrate, we find in the reports of the several committees major emphasis being given to the following topics: present-

³ *Preliminary Committee Reports of the White House Conference on Child Health and Protection* (1930).

day medical education, with particular reference to the training of physicians for the practice of pediatrics and obstetrics, and the preparation of nurses; the underlying principles of public-health organization and administration, including the relations of federal, state, and local governments and the theory and practice of subsidies; the question of professional responsibilities and ethics of various groups; the place and function of the home and family in present-day society, its opportunities and obligations to meet the basic needs of men, women, and children, and the importance of education of parents and young people for home and family life; the clarification of the relations between federal, state, and local governments, and the use of federal grants-in-aid for social welfare work; the prevalence and far-reaching social and individual consequences of sickness, accidents, mental disorders, unemployment, and inadequate family incomes; the present-day rôle of the home and family, the church, the schools, the police and courts, industrial life, and the community in the satisfaction or frustration of human needs and functions and the development of wholesome, sane personality.

It is suggested that when a conference on child health and protection concerns itself with a range of social questions as great as these, the task of child welfare has entered upon a new phase wherein the well-being of the child is emerging as a sensitive measure of the whole of our social life and its conditioning of human welfare. In other words, we are beginning to test the social, economic, and political activities of today by the quality of childhood they produce and are finding that nothing is irrelevant to the welfare of children.

Another significant aspect of the Conference is the evidence it gives of an enormous expansion in our knowledge of the means to more wholesome childhood. Not only are there available greatly improved methods and techniques for diagnosing and treating the ills and defects of childhood, but, more important, there is a growing body of effective techniques and methods for child nurture designed to avoid these ills and defects and produce better children. But it is evident from the discussions that this newer knowledge has scarcely begun to filter into daily practice; in other words, that the cultural lag within the ranks of the different professions and occu-

pations dealing with children is considerable, so that for years to come we may have to wait for the slow diffusion of what the leaders now know to be desirable and necessary. This points to another change in our conception of the task of child welfare, from the pre-occupation with treatment and care of the handicapped, neglected, and delinquent or dependent child to an increasing awareness of the critical rôle of the adults who, in one manner or another, are directing, nurturing, treating, and educating the child. As the report of the subcommittee on delinquency has succinctly phrased it, "Perhaps nothing is more real in our latter steps than the growing recognition of the fact that 'The Problem Child' has now become 'The Problems of the Child.' "

To translate the present and prospective knowledge of the essentials of wholesome child-rearing into practice calls for extensive alterations and revisions in the content and method of professional education and the practices of physicians, nurses, dentists, educational administrators and teachers, leaders of recreational and leisure-time activities, police, courts, probation officers, administrators, and attendants of the various child-caring institutions, religious leaders, and numerous others. In addition we must contemplate the further task of developing within the home and family a readiness to adopt and use this knowledge through education of youth for home and family life and through parental education for adults.

Without minimizing the necessity for immediate improvement in the many and serious conditions and handicaps now burdening our child population, it must be recognized that this Conference has presented a program which goes far beyond the earlier conferences, not only in the range of subjects covered, but in viewing child welfare as a task of better nurture for all children through every channel and agency. In doing so it has given evidence of a change in the status of the child more radical and far reaching than would have been believed possible a few years ago. Not the least interesting aspect of this change is the absence from the report and discussions of any consciousness of being very radical, which again suggests the distance we have traveled since 1919 or 1909.

OTHER EVENTS

While the Conference was laying down these foundations for a wider conception of child welfare and its effective achievement, the country has been faced with two possible major threats to the well-being of children: the extensive drought which has brought hardship and privation to the agricultural population of the South Atlantic, East-South Central and West-South Central regions, and the severe economic depression with the country-wide unemployment crisis (although depressions have often been accompanied by a lowered death-rate). Energetic efforts have been made to provide relief for the drought sufferers and the families of the unemployed which may mitigate the devastating effect of these conditions upon childhood. In the light of the Conference program with its emphasis upon the child as a product of the social, economic, and political conditions surrounding him, it is probable that 1930 will be marked as a black year for children, the influence of which will be apparent for many years to come, as we have seen in the child population of the war period abroad. In certain areas we may see the curiously ironic situation of improved child care and nutrition, as the relief organizations, under the spur of the emergency, provide, through schools and elsewhere, something approaching an adequate physical care of the child.

From the viewpoint of the child as a product or resultant of social situations and change, the year 1930 was marked by the appearance of two important declarations affecting the home and family, namely, the pronouncement of the Anglican bishops at the Lambeth Conference in England last summer and the recent issuance of the Pope's encyclical "on Christian Marriage." Not only as they affect marriage and the family, but in their treatment of contraception, these two statements must be regarded as highly important for the status of the child. The Lambeth Conference statement recognized and by implication approved the practice of contraception under certain circumstances, thereby adding the Anglican group to other Protestant groups which now admit birth control. The encyclical reiterates the existing condemnation by the Catholic church of any deliberate efforts to prevent conception. The encyclical also declares

the necessity of an adequate income for the maintenance of the family and of the provision thereof from public funds if private employment and charity are not sufficient. In this latter point the encyclical is at one with the declarations made by the White House Conference of the imperative need for an improved family income to protect childhood.

It is not unwarranted to say, therefore, that the year 1930 witnessed an unusually active interest in the well-being of children, with particular emphasis upon the social conditions affecting the home and family and the nurture of children. In the perspective of the years to come this emphasis and concern may appear of more importance than any of the legislative and administrative changes for direct child care and protection.

THE STATUS OF WOMEN

CHASE GOING WOODHOUSE

Institute of Women's Professional Relations

ABSTRACT

The year 1930 saw 6 women elected to the House of Representatives and 145 in legislatures in 39 states. A referendum in Illinois opened jury service to women. The majority of women continue to oppose the blanket equal-rights amendment and to work for specific legislation removing legal discriminations against women. There has been a slight revival of interest in protective legislation for women in industry. Studies show earnings for women in industry and also for women in business and the professions relatively low in comparison with those of men. There is a growing emphasis upon the necessity of more occupational guidance, especially for the college woman.

The year just passed has not seen any epoch-making event changing the status of women but many indications of a steady and continuous development toward improvement in their political and economic status.

In the political field women continue to gain slowly. There are now 9 women in Congress. Two of them were defeated in the November elections, 1 for re-election and the other as a candidate for the Senate, and a third withdrew of her own wish. The Seventy-second Congress will have 6 women members whereas the Seventy-first started with 8. In all 13 women have been elected to the House of Representatives in thirteen years and 2 have been unsuccessful candidates for the Senate. With 435 members in the House this seems a slow process unless one looks back at the great number of years during which women did not have the franchise.

Three of the 6 women elected in November have represented their districts since 1925. The 6 will not form a "woman's bloc," 3 are Democrats, 3 Republicans; 3 are wet and 3 are dry.

Reports from the League of Women Voters indicate that 145 women will serve this year in 39 state legislatures, 140 elected in 1930 and 5 serving unexpired terms. Of those elected in 1930, 46 have held office before. Interestingly enough, New England still leads in numbers—Connecticut has 21 women lawmakers, New Hampshire 18, Vermont 16. There is 1 woman in the senate in Maine, New Hampshire, Vermont, Rhode Island, North Carolina, South Carolina, Texas, New Mexico, Wyoming, Minnesota, and Illinois. All of

the other women legislators are in a lower house. In Minnesota the elections are nonpartisan. The two women in New Hampshire were elected by both Republicans and Democrats. Of the others 50 are Democrats, 88 Republicans, and 1 a Socialist. Most of these women are around fifty years of age. Connecticut has 1 woman in the legislature seventy-one years of age and 6 others over sixty. On the other hand, Indiana has a member one year out of college. Married women predominate.

Legal technicalities in many states prevent women serving on juries unless specifically so permitted by law. In Illinois bills giving this permission have been defeated since 1922. In 1929 one was passed with the provision of a popular referendum added. Illinois is the first state to submit this question to the people. It was carried last November.

In federal legislation the women's organizations have given most attention to the maternity and infancy bills and to the retention of the administration of federal funds for this purpose in the hands of the Children's Bureau. The Jones bill, which covers their program, passed the Senate on January 10, 1931, and will no doubt become law.

At the hearing on the equal-rights amendment before a subcommittee of the Senate Judiciary Committee on January 6, 12 national women's organizations appeared to speak against it and 1 for it. Mrs. Carson's summary at the hearing is typical of the present philosophy of the majority of organized women on legislation. She said:

The League of Women Voters believes in the enactment of measures which, in view of the actual biological, social and occupational differences between men and women, tend to secure for women a true equality. We are not seeking a mathematical equality to be always measured and balanced making sure that neither men nor women have one thing more nor less than the other. This rigid, mathematical sort of equality we believe to be implicit in this amendment we are opposing. The end we are seeking by careful study of each differentiation and by definite legislation drafted on the basis of such study is not equality in the sense of identity but justice and human happiness and opportunity for the most useful development of citizens regardless of sex—an end to which equality is only a means.

An interesting recognition of the educational and scientific efforts of women in politics was the election of Miss Belle Sherwin as vice-president of the American Political Science Association at its annual

meeting in December. This is the first time a woman has held this office.

The most useful recent publication in this field is *A Survey of the Legal Status of Women in the 48 States*, published by the League of Women Voters (rev. ed., March, 1930, p. 228). This abstracts by states the legislation through 1929 concerning contractual rights, property rights, domicil, guardianship of children, marriage, and divorce.

With the increasing number of married women in business and the professions the question of domicil arouses greater interest. "Separate Domicil for Married Women," by Sophonisba P. Breckinridge, in the *Social Service Review*, March, 1930, gives a thorough résumé of the present situation and definite suggestions for model legislation.

The present business situation has somewhat revived interest in labor laws for women. From 1909 through 1917, 39 states passed laws regulating hours of work for women. In the past seven years only 3 states have made slight improvements in their hour legislation. There are still 5 states with no legal limit to the working day for women, and 19 in which they may work 10 or more hours a day. In 1931 there are 8 states—Arizona, California, Colorado, Montana, Nevada, New Mexico, Washington, and the District of Columbia—in which the eight-hour day is achieved by legislation. Of this group California is the only state industrially important. In New York certain occupational groups are protected, but by no means all working women come under the law. A survey of the present status of the hour laws made for the National Women's Trade Union League appears in the *Life and Labor Bulletin*, February, 1931.

The 1930 legislative sessions in ten states and special sessions in several others produced few laws directly affecting women workers. New York amended its hour law to require in factories and mercantile establishments a weekly half-holiday if more than eight hours are worked in any one day in the week, and to forbid any overtime in connection with the forty-eight-hour six day week. New Jersey established a bureau for women and children which put into effect the night-work law previously held unenforceable, and Pennsylvania started a women's and children's section in its bureau of inspection.

A notable pronouncement was that made by the Cotton Textile

Institute on September 24, 1930, when the Board of Directors unanimously recommended the discontinuance of night work for women and minors in the cotton mills of the United States, night work later being defined as that between 7:00 P.M. and 6:00 A.M.

Bulletin 66 of the United States Women's Bureau, *History of Labor Legislation for Women in Three States and Chronological Development of Labor Legislation for Women in the United States*, summarizes the laws as of January, 1929, by states and by topics and gives a complete history of labor legislation for women in California, Massachusetts, and New York.

Much data have been made available on women's earnings. The last annual report of the United States Women's Bureau brings together figures collected in its various studies on earnings of 100,967 white and 6,120 Negro women in 1,472 factories, stores, and laundries in thirteen states—Alabama, Arkansas, Delaware, Georgia, Kentucky, Mississippi, Missouri, New Jersey, Ohio, Oklahoma, Rhode Island, South Carolina, and Tennessee. Median weekly earnings for white women in manufacturing varied from \$19.13 in Rhode Island in 1920 to \$8.35 in Mississippi in 1924; in general mercantile establishments from \$17.64 in Oklahoma in 1924 to \$11.54 in Kentucky in 1921; in five- and ten-cent stores from \$11.92 in Rhode Island in 1920 to \$8.07 in Alabama in 1922; and in laundries from \$12.84 in New Jersey in 1922 to \$8.97 in Tennessee in 1925.

In reviewing these figures it must be remembered that of 60,000 wage-earning women studied by the United States Women's Bureau more than one-half gave their whole pay to their families, two-fifths gave part, and fewer than one-tenth gave nothing. In a survey of 17,000 single women 1 in every 5 took care of a family without help from a male relative and 1 in 11 was the sole breadwinner.

Few 1930 census data are as yet available. The number of women gainfully employed has increased to 10,000,000, 1,500,000 more than in 1920. This means that 27 per cent of the women between sixteen and sixty-four years of age are gainfully employed. Details are available for only a few states. In New Hampshire the number of men employed in 1930 is less than in 1920, while the number of women shows a slight increase; in Vermont the gainfully employed women have increased in numbers relatively more than have the men. The

same is true in Georgia. In the District of Columbia the number of women gainfully employed has decreased while the number of men has increased.

It seems that in the professions and clerical occupations women will exceed men in numbers. The numbers of women in colleges continue to grow. Ten women's colleges now have a registration of over 1,000—the largest being Hunter with 4,614, Smith with 1,986, and North Carolina College for Women with 1,704. But the college women are showing little diversity in occupation. The Institute of Women's Professional Relations in a study of the demand and supply of college-trained women (*Journal of the American Association of University Women*, January, 1931) reports an oversupply of teachers in all localities, especially in high-school branches and more especially in English and history. In special subjects—fine arts, home economics, physical education, public-school music, and kindergarten and nursery schools—the situation is much better. The colleges and universities reported a more favorable situation in placement in business, particularly for those with secretarial training as an opening wedge, in journalism, medicine, and dentistry, but not in law. Social work seems to have more positions available than qualified persons to fill them. The study concludes:

There is no doubt that a part of the oversupply of teachers consists of persons not especially qualified for the work and that the educational institutions have an obligation to cull out candidates for teacher training more rigorously than at present and to adopt policies of educational guidance which will lead to a greater diversification of occupations entered by college women.

The outstanding study on the earnings of women above the wage-earning level is that by Margaret Elliott and Grace E. Manson, *Earnings of Women in Business and the Professions*, published by the University of Michigan in 1930. It is based on 14,073 replies to a comprehensive questionnaire sent to members of the National Federation of Business and Professional Women's Clubs. More of the women were engaged in clerical work than in work of any other sort. Next in importance came teaching, with sales and publicity work in third place.

Of the 13,195 women reporting earnings, only 6.7 per cent were earning \$3,000 or more a year. Of those independently engaged in

business or a profession, 1 in 3 earned \$3,000 or more a year as against 1 in 20 of those in salaried positions. Median earnings for the entire group were \$1,548, 1 in 4 earning less than \$1,213, 1 in 4 over \$2,034.

The 1,754 college women in the study reported median earnings of \$1,875 a year. While they earned more in every occupational group than those with less education, it is evident that they are concentrating in the lower-paid occupations and not taking full advantage of their opportunities. Their median earnings were, in clerical work, \$1,621; in teaching, \$1,773; in sales and publicity, \$1,962; in finance, \$2,000; in health, \$2,483; in production and planning, \$2,500.

Reports on 1929 earnings of 1,300 Barnard alumnae (*Women's Work and Education*, December, 1930) show somewhat higher figures—clerical work, \$2,091; instructional, \$2,629; production and planning, \$2,667; food, housing, and personal service, \$2,750; sales and publicity, \$2,896; finance, \$2,900; health, \$3,500; legal and protective, \$4,000. But both reports point to the necessity for less concentration of educated women in teaching and clerical work.

Among the recent books *A History of Women's Education in the United States* by Thomas Woody (New York: Science Press, 1929; 2 vols.), *Women Workers and the Industrial Revolution, 1755-1850* by Ivy Pinchbeck (London: George Routledge & Sons, 1930; 342 pp.), *Victorian Working Women* by Wanda F. Neff (New York: Columbia University Press, 1929; 288 pp.), and *A Room of One's Own* by Virginia Wolf (New York: Harcourt, Brace & Co., 1929; 199 pp.) throw interesting light on the present-day problems of women.

The Southern Woman's Educational Alliance has been studying a long-neglected group—the rural women and girls—and the three reports published to date will help start a new era in this field: *A Mountain School and Rural Girls in the City at Work*, both by O. Latham Hatcher (Richmond: Garrett & Massie, 1930; 248 pp.), and *Guiding Rural Boys and Girls* by O. Latham Hatcher (New York: McGraw-Hill Book Co., 1930; 326 pp.).

In brief, the year seems to have been marked by some revival of interest in protective legislation for women, by many discussions of women's earnings, and by a growing emphasis upon the desirability and real need for educational and occupational guidance for women.

CRIME AND PENOLOGY

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ABSTRACT

This article reviews the more important developments of the year in the field of crime and penology mainly by calling attention to programs and tendencies although some statistics are presented. (1) Federal census figures give the population of state prisons and reformatories and show an increasing ratio of prison to general population. (2) Uniform crime reporting taken over by the Department of Justice covers "offenses known to the police" in 879 cities. (3) Comparison of normal and actual prison capacity indicates the need for building programs which are under way. (4) The federal government is building new institutions, expanding its program, and sponsoring research. (5) Official and private agencies continue their research over a wide field of interests. (6) Publications of the year are noted.

The developments and statistics in the field of crime and penology during the year 1930 may be presented under some half-dozen headings. (1) The more frequent census of prisoners permits a presentation of recent data on prison population. (2) Uniform crime reporting has completed its first year with interesting results. (3) Prison fires and riots as well as scientific investigation provoke interest in penological programs of the several states. (4) The federal government is expanding and developing its work and is making studies. (5) Official and private commissions continue to carry on research in important aspects of crime. (6) Publications of the year attracted considerable interest.

I. STATISTICS OF PRISONERS

Statistics of the number of prisoners in state prisons and reformatories showed that on January 1, 1930, there were 116,670 such persons confined representing an increase of more than 25,000 over the same date in 1927. Table I shows the number of prisoners and the number per 100,000 of the population at five periods covering a span of twenty years. It is interesting to note, that, while the general population increased 33.5 per cent between 1910 and 1930, the prison population increased 88.4 per cent, although this is not to be taken as representing an increase in crime to that extent.

Table II shows the population of state reformatories and prisons at the beginning of the year 1930, while Table III gives similar data for federal institutions on December 1, 1930.

II. UNIFORM CRIME REPORTS

In 1927 there was organized a Committee on Uniform Crime Records of the International Association of Chiefs of Police. By

TABLE I
PRISONERS IN STATE PRISONS AND REFORMATORIES ON JANUARY 1*

	1930	1927	1926	1923	1910	NUMBER PER 100,000 OF THE GENERAL POPULATION				
						1930	1927	1926	1923	1910
State prisons and reformatories.....	116,670	89,294	83,721	72,474	61,933	95.1	79.2	75.3	68.3	70.2

*C. H. Gehlke, "Crime," *American Journal of Sociology*, XXXIV, No. 1, p. 162, and *The World Almanac*, 1931, p. 450.

TABLE II
PRISONERS IN STATE PRISONS AND REFORMATORIES, JANUARY 1, 1930*

Alabama.....	4,263	Nevada.....	245
Arizona.....	509	New Hampshire.....	123
Arkansas.....	1,082	New Jersey.....	2,656
California.....	7,072	New Mexico.....	489
Colorado.....	1,258	New York.....	8,019
Connecticut.....	1,122	North Carolina.....	2,380
Delaware (Workhouse).....	563	North Dakota.....	310
Florida.....	2,587	Ohio.....	8,806
Georgia.....	3,424	Oklahoma.....	3,674
Idaho.....	379	Oregon.....	817
Illinois.....	8,026	Pennsylvania.....	5,433
Indiana.....	4,218	Rhode Island.....	677
Iowa.....	2,461	South Carolina.....	687
Kansas.....	2,865	South Dakota.....	462
Kentucky.....	2,961	Tennessee.....	2,713
Louisiana.....	2,119	Texas.....	5,055
Maine.....	434	Utah.....	278
Maryland.....	2,281	Vermont.....	365
Massachusetts.....	1,987	Virginia.....	2,664
Michigan.....	7,118	Washington.....	1,735
Minnesota.....	2,360	West Virginia.....	2,296
Mississippi.....	1,719	Wisconsin.....	1,858
Missouri.....	3,971	Wyoming.....	356
Montana.....	668	All States.....	116,670
Nebraska.....	1,125		

* *The World Almanac*, 1931, p. 450.

January of 1930 this Committee had so far progressed in its work as to issue the first monthly record of *Offenses Known to the Police*. The Committee continued the monthly publication of this bulletin until

September, 1930, when the work was taken over by the Bureau of Investigation of the United States Department of Justice. On December 1, statistics of offenses were being received from 879 cities, thus making a good start toward the establishment of a crime registration area in the United States.

Table II shows the distribution by classification of offenses known to the police for each month of the year 1930. The offenses included in this table are those which came under Part 1 of the Uniform Classification which is being adopted by police and federal authorities.

TABLE III

FEDERAL PRISONERS, DECEMBER 1, 1930*

Federal prisons, reformatory, and road camps.....	12,149
State prisons, reformatories, and jails.....	13,875†
National boys' training school.....	445
Total.....	26,469

* From a *Report on a Hearing on Department of Justice Appropriation Bill*, before the Subcommittee of House Committee on Appropriation, Seventy-first Congress, third session, December 4, 1930, p. 8.

† Federal prisoners in jails are not here separated from those in State Prisons and Reformatories, but on pages 177-78 of the above named report the federal prisoners in jails are separately enumerated as of June 30, 1930, showing that on that date there were 12,442 federal prisoners in jails.

NOTE.—Forty-nine per cent of the prisoners in federal institutions during the year ending June 30, 1930, were liquor law violators, and 67 per cent of the federal prisoners in state and county institutions were so classified.

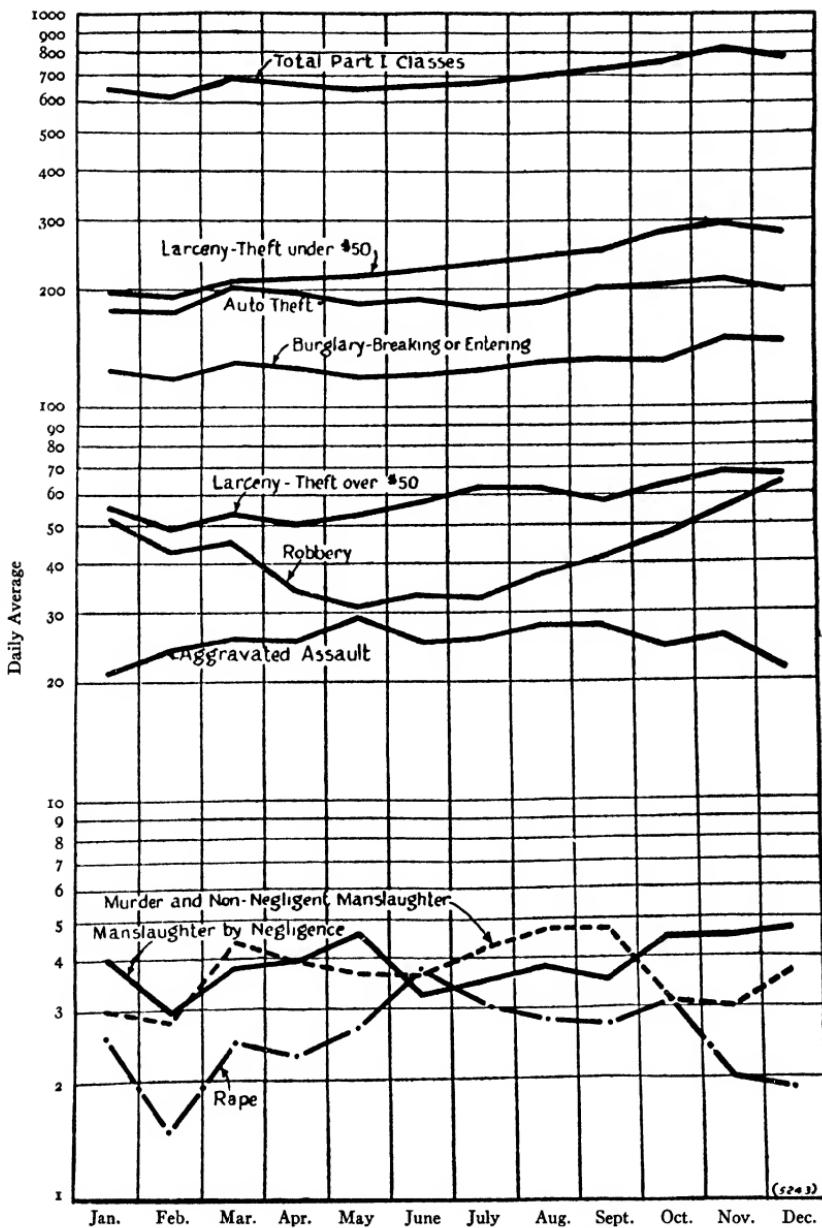
Chart I illustrates the monthly trends during 1930 for the crimes shown in Table IV. This is an interesting and significant chart inasmuch as it represents the first time we have had a sufficient body of widely and uniformly collected police statistics available for making such a presentation. The monthly variations here portrayed will be of even greater significance when they have been extended over a sufficient number of years to provide a basis upon which to make generalizations regarding the seasonal fluctuations in crime in the United States.

III. STATE PENOLOGICAL PROGRAMS

Frequent reports of overcrowding, fires like that in the Ohio State Penitentiary at Columbus killing 318 men, the riots of 1929 and 1930, and the findings of various research programs and commissions create interest in the penological programs of the several states. Table III shows significant developments in prisons and other penal

CHART I*

MONTHLY CRIME TRENDS FOR CITIES OF 100,000 POPULATION AND OVER
JANUARY TO DECEMBER, 1930



* From *Uniform Crime Reports for the United States and Its Possessions*. Bureau of Investigation, U.S. Department of Justice, I, No. 5 (December, 1930), 5. (5243)

affairs during 1930. Data for this summary were secured through letters to the officials of penal institutions over the country. Forty-one states and several federal institutions replied. It will be observed that the information compares the normal capacity of these institutions with the inmate population as of January 1, 1931, or a date

TABLE IV
PERCENTAGE OF OFFENSES KNOWN*

Part I Classes of the Uniform Classification	Janu- ary	Feb- ruary	Mar.	April	May	June	July	Aug- ust	Sep- tem- ber	Octo- ber-	No- vem- ber	De- cem- ber
Total	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0
Murder and non-negligent manslaughter	0 5	0 4	0 5	0 5	0 5	0 5	0 6	0 6	0 6	0 4	0 4	0 4
Manslaughter by negligence	0 5	0 3	0 4	0 4	0 5	0 4	0 4	0 4	0 4	0 5	0 4	0 4
Rape	0 6	0 3	0 4	0 4	0 4	0 6	0 5	0 5	0 4	0 4	0 3	0 3
Robbery	7 9	6 8	6 0	4 9	4 5	4 9	4 8	5 3	5 4	5 8	6 7	7 8
Aggravated assault	4 1	3 8	3 5	3 7	4 5	4 2	4 3	4 6	4 5	3 8	3 5	3 2
Burglary-breaking or entering	20 6	21 4	20 9	20 7	20 1	19 8	20 1	19 9	19 7	18 3	19 7	20 6
Larceny—theft: \$50 and over	8 6	8 6	8 2	8 6	8 8	9 2	0 5	9 1	9 1	8 5	8 8	8 6
Larceny—theft: under \$50.	32 3	31 4	31 8	32 8	32 8	32 9	34 0	34 6	33 9	30 9	35 5	35 0
Auto theft	24 9	27 0	28 3	28 0	27 9	27 5	25 8	25 0	26 0	25 4	24 7	23 7

* From *Uniform Crime Reports for the United States and Its Possessions*, Bureau of Investigation, U.S. Department of Justice, I, No. 5 (December, 1930), 6.

near that time. Thus a good deal of light is thrown upon the degree of overcrowding of these institutions. The construction under way or recently completed is indicated, and finally there are included statements relative to new plans or policies under consideration in the various states. While the data are incomplete they do give an informative picture of the general trends.

TABLE V
SIGNIFICANT CONDITIONS AND DEVELOPMENTS IN PENOLOGY IN THE
UNITED STATES IN 1930

ALABAMA—Appointment of probation officer in federal courts for eastern district; one authorized for western district.

CALIFORNIA—*San Quentin*, normal capacity, 4,088; population February 12 was 4,155. Women's prison, library, mess hall, and educational building. A new intermediate prison has been authorized, and much new construction planned.

COLORADO—*State Penitentiary*, normal capacity, 582; population February 5 was 1,157. New cell block. New state prison farm planned, and the making of old prison fire-proof.

State Reformatory, normal capacity, 300; population February 12, 206.

TABLE V—Continued

CONNECTICUT—*State Prison*, normal capacity, 700; population February 7, 683. Purchase of land for farm.

State Farm for Women, normal capacity, 230; population January 1, 216. Much new construction recently completed. Planning a separate department for defective delinquents.

DELAWARE—*New Castle County Workhouse*, normal capacity, 500; population February 12, 605. New Women's Prison, asking for funds to relieve overcrowding.

FLORIDA—*State Farm*, normal capacity, 1,560; population January 1, 1,560. New cell units for 1,500 men. New cell units for women.

GEORGIA—*State Farm*, normal capacity, 500; population February 7, 700. Asking for funds to relieve congestion. This farm cares only for women and non-able-bodied men. Able-bodied are in road camps.

IDAHO—*State Penitentiary*, normal capacity, 450; population January 1, 405. Planning for a new prison farm of 500 acres.

ILLINOIS—*State Reformatory*, normal capacity, 1,500; population February 6, 2,408. New cell house to increase capacity to 2,500. Education work of this institution has been thoroughly reorganized with an educational director and sixteen trained civilian teachers, giving academic and vocational work.

State Penitentiary, population July 1, 1930, 4,167. New cell block. In 1930 Illinois had under way a construction program amounting to \$3,000,000, but \$810,000 more is being asked for in next biennium to take care of expected increase.

Southern Penitentiary (Menard), population July 1, 1930, 2,120.

State Women's Reformatory at Dwight, Illinois, was opened during the year.

INDIANA—*State Prison*, normal capacity, 1,500; population January 1, 2,373. New cell house. Asking for another new cell house to accommodate 400.

• *Reformatory*, normal capacity, 1,200; population January 1, 2,115. New building outside walls for 200 men. Asking for a new building for Manufacturing Trade School.

Women's Prison, normal capacity, 144; population January 1, 173.

IOWA—*Women's Reformatory*, normal capacity, 78; population January 1, 107.

State Penitentiary, population February 6, 1,318. New cell houses at the Penitentiary and at the Reformatory for men at Anamosa.

KANSAS—*State Reformatory*, normal capacity, 1,240; population February 7, 1,013. New trades building.

State Prison, population February 5, 1,853.

Industrial Farm for Women, normal capacity, 200; population January 1, 150; new cottage, poultry farm, and dairy barn.

KENTUCKY—*State Penitentiary*, normal capacity, 540; population January 1, 1,079.

State Reformatory, normal capacity, 1,700; population February 6, 2,631. New prison farm from proceeds of Gross Sales Tax Bill.

MAINE—*State Reformatory for Men*, normal capacity, 100; population January 1, 117.

State Reformatory for Women, normal capacity, 90; population January 1, 105. Completion of building for those needing special care.

TABLE V—*Continued*

MARYLAND—*State Penitentiary*, normal capacity, 950; population January 1, 1,213.

Work begun on new prison at Hagerstown. Appointment in 1930 of a superintendent of prisons within State Board of Welfare. Survey of penal institutions under way, and plans for a new institution, allowing for classification. Six students of Johns Hopkins employed as teachers. Other changes anticipated as result of survey.

House of Correction, normal capacity, 1,140; population January 1, 1,358.

MASSACHUSETTS—*State Prison*, normal capacity, 750; population January 1, 922. New prison being built at Norfolk. The new prison at Norfolk is being developed along experimental lines, under leadership of Mr. Howard Gill, a Harvard graduate. One unit is completed with decent rooms instead of cells, and with a modified self-government plan. Under Dr. Stearns, the commissioner of corrections, personnel officers are being introduced into the prisons for the purpose of taking life histories, and helping in character building. A study of the Harvard Crime Survey is completed by Dr. and Mrs. Sheldon Glueck, showing facts in the after-careers of 1,000 juvenile delinquents who passed through the Juvenile Court several years ago. Also, by same group a study is being made of 500 graduates of the Massachusetts Reformatory for Women. Also, in Massachusetts Mr. Herbert Parsons, commissioner of probation, has undertaken an elaborate statistical study of criminal court records, with a view toward rendering periodic reports on the work of the courts with respect to sentences and policies.

State Reformatory, normal capacity, 975; population January 1, 970.

Reformatory for Women, normal capacity, 248; population January 1, 257.

State Prison Colony, population January 1, 172.

Prison Camp and Hospital, population January 1, 103.

State Farm, population January 1, 1,366.

MICHIGAN—*Branch Prison, Marquette*, normal capacity, 666; population January 1, 936. Capital punishment has been urged by some for years and may pass present legislature.

Jackson Prison, population January 1, 5,086. New and old prison at Jackson filled to capacity.

Reformatory, normal capacity, 1,250; population January 1, 1,850. New cell block just completed with 540 single cells at the Reformatory.

MINNESOTA—*State Prison*, normal capacity, 1,244; population January 1, 1,265. Efforts are being made toward the organization of a state-wide probation system under the State Board of Control, and the reorganization of the Parole Board, independent of the Board of Control, and of the penal institutions, under a paid chairman, and two civilian assistants, working on a per diem basis.

Men's Reformatory, normal capacity, 845; population February 20, 1930, 988.

Women's Reformatory, normal capacity, 81; population January 1, 60.

MISSOURI—*Penitentiary*, normal capacity, 2,660; population January 13, 4,345. New Intermediate Reformatory under construction. Six additional dormitories and a new administration building are planned for the penitentiary.

MISSISSIPPI—*Penitentiary*, normal capacity, 2,250; population February 7, 2,000.

MONTANA—*State Prison*, normal capacity, 450; population January 1, 721. Asking for \$210,000 for a new cell building.

TABLE V—Continued

NEBRASKA—*Penitentiary*, normal capacity, 450; population February 5, 765.
Reformatory (Women's), normal capacity, 54; population February 5, 48.
Reformatory (Men's), normal capacity, 350; population January 1, 410.

NEW HAMPSHIRE—*State Prison*, normal capacity, 248; population January 1, 187.
 "Largest population ever."

NEW JERSEY—*Reformatory*, normal capacity, 775; population February 7, 800. New wing, housing 300, under construction. This institution now taking overflow from Trenton Prison. New Reformatory at Annandale. Extensive development of Penal institutions based on facilities for clinical study and classification. Need institution for male defective delinquents.

NEW MEXICO—*Penitentiary*, normal capacity, 300; population January 1, 499. Requesting legislature for new cell block and for building for women.

NEW YORK—*Sing Sing Prison*, several new buildings under construction with view toward modernizing.
Clinton Prison, population, 1,500.
Great Meadow Prison, normal capacity, 1,150; population January 1, 1,140.
Napanoch Prison, normal capacity, 496; population January 1, 762. Just opened new building increasing capacity to 900. Napanoch is the institution for male defective delinquents and is receiving transfers, so that by June 1, a population of 900 is expected.
Auburn Prison, normal capacity, 1,281; population February 6, 1,401. Several new buildings under construction. About 400 of the men at Auburn are in road camps and on the Farm.
Elmira Reformatory, normal capacity, 1,440; population February 16, 1,616. Progressive policies are being inaugurated by the New York State Department of Corrections, including the following measures: (1) Replacement of old buildings with modern prison structures. (2) Reclassification of prisoners with reference to their placement in *minimum*, *medium*, and *maximum* security types of prisons. (3) The building of medium types of security prisons without walls, and the development of road camps, afforestation camps, and of special institutions for defective delinquents and for psychopathic delinquents. (4) The employment of a large number of new guards at an increased salary basis; and schools for prison guards at Auburn, Clinton, Great Meadow, and Sing Sing prisons. (5) The removal of the Women's Prison to Bedford Reformatory, and the enlarging of Albion Reformatory for female defective delinquents. Also, new Parole Board has been established.

NORTH CAROLINA—*State Prison*, population May 1, 1930, 2,257 males, 77 females. Report of Committee advocated building of a new central prison establishment of parole, adequate facilities for employment, trained personnel, classification of prisoners, and the taking over by the state of the county chain-gang convicts.

NORTH DAKOTA—*State Prison*, normal capacity, 400; population January 1, 370.

OHIO—*State Penitentiary*, normal capacity, 1,800; population January 1, 3,220.* Building two new dormitories with capacity for 250 inmates.

* These are warden's figures; but report of Department of Public Welfare, as given in the *Quarterly Bulletin of the Managing Officers Association* for December, 1930, states that proper maximum capacity of the Penitentiary is 3,700, while average population in 1929 was 4,524.

TABLE V—Continued

Reformatory (Women's), normal capacity, 270; population January 1, 340. To open a new industrial building at the women's Reformatory. A recent law sends women misdemeanants to local jails and workhouses. The Reformatory authorities hope for a repeal of this law. The Ohio Department of Public Welfare has inaugurated more extensive parole supervision. Also, the establishment of a Bureau of Examination and Classification, through which all prisoners will pass for examination, and will then be transferred to appropriate institution.

Reformatory (Men's), normal capacity, 1,800; population averaging for 1929, 2,833.

OKLAHOMA—*State Reformatory*, normal capacity, 850; population January 1, 600.

Penitentiary, normal capacity, 2,175; population February 9, 3,085. New construction plans are before the legislature.

OREGON—*Penitentiary*, population February 9,909. New cell house. Asking for a psychiatrist and a vocational counselor.

PENNSYLVANIA—*Eastern Penitentiary*, normal capacity, 1,200; population January 1, 1772. New penitentiary being built at Graterford; also much new construction under way at the Western State Penitentiary at Pittsburgh. Eight hundred thirty men now at the new prison. Pennsylvania has planned a thorough reorganization of the parole system on a district basis, with trained personnel and modern methods of case work.

RHODE ISLAND—*State Prison*, normal capacity, 525; population February 9, 734.

Reformatory (Women), normal capacity, 45; population January 1, 40. Hoping for a new reformatory within the next few years.

SOUTH CAROLINA—*Penitentiary*, normal capacity, 600; population February 1, 887. Unmaterialized plans for additions.

SOUTH DAKOTA—*Penitentiary*, normal capacity, 440; population January 1, 466. Legislature considering new parole and probation laws.

TEXAS—*State Prison*, normal capacity, 4,900; population January 1, 5,068. Under construction: a new farm unit for 250 men, a small farm unit for 250 men, and a road unit for 100 men; also, making cells sanitary, and providing a fire protection sprinkling system; also a new printing plant. Five hundred convicted prisoners await transfer from county jails.

UTAH—*State Prison*, normal capacity, 300; population February 1, 330. Asking for \$400,000 for a new prison farm. Also State University conducting a crime survey.

VIRGINIA—*State Farm*, normal capacity, 700; population January 1, 766. Legislation asked for state farm for women, and for regional state jail farms.

VERMONT—*State Prison*, normal capacity, 375; population January 1, 392.

WASHINGTON—*Penitentiary*, normal capacity, 1,000; population January 1, 1,124. A new wing for 250 men and new quarters for women. An additional wing asked for.

Reformatory, normal capacity, 1,200; population January 1, 664. New dining hall, kitchen, and chapel.

WEST VIRGINIA—*Penitentiary*, normal capacity, 1,680; population January 1, 2,375.

New barracks within walls. Asking for funds to extend the walls. Six hundred men out on road work. "Badly congested—imperative to enlarge."

TABLE V—Continued

WISCONSIN—*State Prison*, normal capacity, 956; population February 1, 1,531. "Something must be done in very near future." Suggestion that several hundred men be sent to northern Wisconsin for reforestation work. Hope to enlarge the farm work of the Reformatory by purchase of new lands.

Reformatory, normal capacity, 592; population January 1, 785.

WYOMING—*Penitentiary*, normal capacity, 272; population February 12, 334. Just completed new cell block and dormitory. With new cell block hope to make better segregation of men.

UNITED STATES DEPARTMENT OF JUSTICE—*Prison, Leavenworth, Kansas*, normal capacity, 1,500; population January 2, 3,172. This count does not include population of the annex.

Prison, McNeil Island, Washington, population August, 1930, 1,010. Grand Jury investigation has urged purchase of entire Island to enlarge the farm. Also, construction of new cell blocks to relieve congestion.

Prison, Atlanta, normal capacity, 2,100; population January 1, 3,488.

Reformatory, Chillicothe, Ohio, normal capacity, 1,500; population January 1, 1,414.

Women's Reformatory, Alderson, West Virginia, normal capacity, 500; population, 463.

Disciplinary Barracks Governor's Island, New York, normal capacity, 509; population January 1, 290.

Naval Prison, Portsmouth, New Hampshire, normal capacity, 420; population January 1, 599. Some new construction to replace old buildings.

IV. PROGRAMS OF THE FEDERAL GOVERNMENT

Among other federal accomplishments of note during 1930 should be mentioned the adoption by Congress of the program of penal legislation sponsored a year ago by Mr. Sanford Bates, the new director of federal prisons. This new legislation covered bills for the following objects: (1) The establishment of an independent Parole Board, and the reorganization of the federal parole system; (2) the reorganization of the Federal Prison Bureau, with authority to establish new federal jails; (3) the authorization of two new federal penal institutions—a prison in the northeast section, and a reformatory west of the Mississippi River; (4) the authorization of the Federal Public Health Service to take charge of the medical work in federal penal institutions; (5) the authorization of a hospital for defective delinquents; (6) provisions for the diversification of employment for federal prisoners.

In addition to putting into operation these measures authorized by Congress, the federal government has established a training

school for guards in federal prisons. It has secured the appointment of wardens' assistants to carry out a program of individualized treatment of men; and has made thirty-eight additional probation officers for work in the federal courts. Also, a Statistical Division has been established within the Bureau of Prisons: federal jails have been established in New Orleans, El Paso, New York City; and sites for federal jails are under consideration in Michigan and Kentucky. Also a Federal Prison Farm is contemplated in Minnesota.

Before leaving our account of developments under the auspices of the federal government in 1930, mention should be made of the work of the National Commission on Law Observance and Enforcement. The popular idea is that this Commission was concerned only with prohibition, the memorable report on which was released early in 1931. But it is important to note that ten other studies of this Commission have been under way as follows: (1) The Volume of Crime and Criminal Statistics, under the direction of Dean Roscoe Pound; (2) The Causes of Crime, under the supervision of Commissioner Harry W. Anderson; (3) The Cost of Crime, under the direction of Messrs. G. H. Door and S. P. Simpson of the New York Bar; (4) Police, under the supervision of August Vollmer; (5) Prosecution, under the direction of Mr. Alfred Bettman of Cincinnati; (6) Courts, in charge of Mr. Bettman; (7) Juvenile Delinquency, under direction of Dr. Miriam Van Waters; (8) Penal Institutions, in charge of Dr. H. H. Hart; (9) Crime and the Foreign Born, under direction of Dr. Edith Abbott; (10) Lawlessness of Governmental Officials in the Enforcement of Law, in charge of Professor Zachariah Chaffee and Mr. Walter H. Pollack of the New York Bar.

V. REPORTS OF COMMISSIONS AND PRISON CONGRESSES

In Illinois the Judicial Advisory Council of the State of Illinois and of Cook County completed a report on criminal procedure, making recommendation for changes.

At Columbia University in New York a crime study has been completed by Professor Jerome Michael, and report on same is in preparation. Also, Professor Raymond Moley's study of the relative advantages of instituting felony proceedings by grand jury indictment, or by information filed by the prosecutor, has been completed.

The Harvard Crime Survey contemplates the publication of several volumes. One on 1,000 juvenile delinquents in court several years ago, and their subsequent history, has been completed by Dr. Sheldon and Mrs. Eleanor Glueck.

The report of the New York State Crime Commission for the year 1930 includes a valuable monograph on *Crime and the Community* made under the auspices of the Subcommission on the Causes and Effects of Crime. Also, a volume on criminal laws, advocated by the Commission, has been published.

In Michigan the Crime Commission authorized by the Legislature two years ago has completed their studies and filed a report.

In Utah a crime survey has been undertaken by Dr. A. L. Jensen of the State University.

In Ohio, the Law Institute of Johns Hopkins University has continued its study of judicial statistics and other pertinent matters relating to the administration of justice.

The National Society of Penal Information has completed its survey of the *Education of Adult Prisoners*, and a volume on this subject is now published. Also, this organization has nearly completed its study of *Chain Gangs in the South*.

The International Penal and Penitentiary Commission held its 10th Conference in Prague, Czechoslovakia, in August, 1930. Among the American delegates were Dr. George W. Kirchwey and Mr. Sanford Bates.

The National Committee on Prison Labor met in Richmond, Virginia, in March, 1930, and organized the Eastern-Southern Conference on State Institution Labor. A similar New England Conference was organized in May. These conferences are furthering legislation under the Hayes-Cooper Act which empowers states to pass legislation controlling incoming goods manufactured by prison labor in other states.

The American Prison Congress met in Louisville, Kentucky, in October, 1930, and adopted resolutions as to the responsibility for prison riots.

A new criminal code has been adopted in Czechoslovakia. The first part of this revision is especially designed to protect the juvenile offender.

VI. PUBLICATIONS OF NOTE IN 1930

ROSCOE POUND. *Criminal Justice in America*. New York: Henry Holt & Co.

RAYMOND MOLEY. *Our Criminal Courts*. New York: Minton, Balch & Co.

CLIFFORD R. SHAW. *The Jack Roller*. Chicago: University of Chicago Press.

HENRY TUFTS. *The Autobiography of a Criminal*. New York: Duffield & Co.

HARRY ELMER BARNES. *The Story of Punishment, A Record of Man's Inhumanity to Man*. Boston: The Stratford Co.

LEONARDO BIANCHI. *Foundations of Mental Hygiene*. New York: D. Appleton & Co.

BORIS BRASOL. *The Elements of Crime*. 2d ed.; New York: Oxford University Press.

DOROTHY W. BURKE. *Youth and Crime*. Washington: U.S. Department of Labor, Children's Bureau, *Publication No. 196*.

Proceedings of the 59th Annual Congress of the American Prison Association, Toronto, Canada. New York: The American Prison Association.

1930 Year Book of National Probation Association. New York: National Probation Association.

Report of New York State Crime Commission, 1930. Albany, N.Y. *Legislative Document, No. 98*.

ORGANIZED RELIGION

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ABSTRACT

This review is limited to an interpretation of events in 1930 within Catholic, Jewish, and Protestant groups, in relation to longer-time developments. Urbanism and secularism affect practically all religious institutions. The disaffection of intellectuals is evident. Still, large sections of the population continue to make use of the conventional programs of religious institutions. A steady interest in international peace is evident in all groups, as is concern over birth control. New knowledge of churches in industrial villages reveals indifference on the part of most of the population to religious ministration, and confusion on the part of the religious leadership. Minorities are concerned with improving interfaith relations, and with social reconstruction.

In view of the obvious limitations of restricted researches in the field of religious changes, the purpose of this article has been confined to a summary of the author's own observations, the views of a score of scholars whom he consulted, and completed research which bears upon the topic.

SOCIAL TRENDS AFFECTING RELIGIOUS INSTITUTIONS

A number of social scientists agree that there are social and intellectual forces which are profoundly affecting the functioning of religious institutions. For example, E. C. Lindeman says: "Urbanism extends its influence and force while the church drifts toward greater confusion and lack of purpose." Mr. Lindeman also mentions "secularism" as having a similar effect on the church, and as being interrelated with urbanism.¹ "Humanism," a much-abused and variously defined term, was possibly more discussed by religious leaders during 1930 than during previous years. There are, of course, "humanist" movements within religious institutions. It is the rapid spread of an agnostic or non-theistic humanism among intellectuals which is receiving particular attention. A new religious book bears the title *Humanism: Another Battle Line*. One of the best-known churchmen in the country stated recently to a small group that an important development "is the way organized religion has been challenged by dozens of Walter Lippmanns." The spread of bol-

¹ *The Church in the Changing Community*. New York: Community Church, 1929.

shevism in China and elsewhere received considerable attention from churchmen. It is alleged that in some quarters great intellectual and social battles are being waged between the two missionary forces of Christianity and bolshevism.

The forms of the institutions of religion are, for the most part, survivals from the medieval and ancient world. In an age of technology the response of the leaders of organized religion has usually been to teach that "the old codes" are of the greatest social value.

It is possible that many students and observers overemphasize the effects upon religious institutions of the disaffection of intellectuals and of urbanism, secularism, and other social forces. Such movements as Christian Science apparently go on steadily, not greatly influenced by them. Church attendance by non-Catholics is declining, according to numerous observers, but this factor may be balanced to some extent by greater attendance at special occasions of the churches and at week-day activities.

There is also much public discussion of religion in the press. It has been reported by one large broadcasting company that, next to music, the religious radio programs meet with the greatest response by listeners. Religion continues to be dealt with in fiction and in drama; the popularity of *The Green Pastures* on the New York City stage seems to be significant evidence of these developments.

For many discernible trends in organized religion there seem to be countertrends. The census figures—all of which originate with ministers of local churches—indicate that large groups within the total population still make use of the conventional services of religious institutions.

ATTITUDES TOWARD RELIGIOUS INSTITUTIONS

Clifford Kilpatrick in his *Religion in Human Affairs* (1929) concludes that the increase in leisure, multiplication of human contacts, increases in per capita income, changes in standards of living, have all made for less adherence to religious institutions. He also says that "while the great mass of the people have perhaps been but slightly affected by materialism, in a philosophical sense, their dominant interests and accepted values draw them away from the religious life."

Data as to the attitudes of population groups toward religious organizations are as yet meager, and the methods of gathering such data are still in the experimental stage. L. L. Thurstone and E. J. Chave, of the University of Chicago, have applied an experimental test to undergraduate, graduate, and divinity students of the University of Chicago and to attendants at the Chicago Forum. Almost fourteen hundred persons participated. Divinity students, they report, as expected, are "more strongly in favor of the church than any of the other groups," while those attending the Chicago Forum are "more frankly antagonistic to the church" than any other groups. The university students occupy middle ground. "The four undergraduate classes do not show any distinct trend to become more in favor or more against the church as they progress through college. The graduate students score about the same, on the average, as the undergraduate students." This testing further seems to indicate that the Catholics are as a whole most strongly favorable toward religious institutions, that the Jews are as a whole more indifferent and frequently antagonistic toward them, and that Protestants occupy an intermediate position in the scale. "Perhaps women are slightly more favorable to the church than the men."²

STATISTICS OF CHURCH MEMBERSHIP

The only yearly compilations of figures on church membership have been those made by Dr. H. K. Carroll, and published in the *Christian Herald*. These include, however, in some instances the estimates of officials of religious bodies, and their reliability has been challenged repeatedly by statisticians. The latest figures compiled were for the year 1929 (in some instances the data for previous years back to 1926 were included) and were made available during 1930. The total figures presented by Dr. Carroll for 1929 was 47,507,281 communicant members of religious bodies. This was said to be a net increase of 300,419 over the previous year. One year earlier Dr. Carroll had reported a net increase of over 1,000,000 in the communicant membership. Herman C. Weber, of the National Council

² *The Measurement of Attitude: A Psychophysical Method and Some Experiments with a Scale for Measuring Attitude toward the Church.* Chicago: University of Chicago Press, 1929.

of the Presbyterian Church in the United States of America, stated in the *Federal Council Bulletin* that "statistical studies indicate that normally about 5.6 per cent of membership is new; about 3.5 per cent is lost annually through removal, disaffection, . . . etc., and about 1.2 per cent by death." Applying these trends to Dr. Carroll's 1929 figures, Mr. Weber concludes that 1929 was a subnormal "year" so far as church membership is concerned.

NEW RESEARCH

Significant new information about the functioning of religious institutions is found in the report brought out in 1930 on *Industrial Village Churches*, by Edmund de S. Brunner, published by the Institute of Social and Religious Research. Sixty-nine representative communities dependent upon manufacturing or mining, with populations between two hundred and fifty and twenty-five hundred, were studied intensively.

"Sheer indifference seemed to characterize the attitude to the Church of a majority of the people in these villages." The church situation is on the whole a "blurred and confused picture." One church building out of every ten is owned by the local industry. One-fifth of the remaining churches had received assistance toward building funds in amounts ranging from five hundred to eighty thousand dollars. The usual contribution was, however, between one and five thousand dollars. In about half the communities it was generally alleged that the industry dominated the local churches.

Another significant report is *Protestant Co-operation in American Cities* by H. Paul Douglass, also published by the Institute of Social and Religious Research. This is a thorough study of city church councils and federations and presents a judicious appraisal of co-operative techniques and experiences.

INTERNATIONAL PEACE

Well-informed observers within Catholic, Jewish, and Protestant groups agree that during 1930 interest in peace education and propaganda was one of the outstanding developments. The newly organized Catholic Association for International Peace issued a series of pamphlets on various aspects of international conflict, co-operation,

and control, in the preparation of which social scientists have had a prominent part. Among Protestant groups a considerable interest is reported in the difficulties of alien pacifists, and conscientious objectors to war, in attaining citizenship. Protestantism has for years maintained extensive denominational and interdenominational programs of peace education.

BIRTH CONTROL

Birth control is a much-discussed subject within all religious groups. The pronouncement of the Lambeth Conference of Anglican Bishops in 1930 in favor of the use of contraceptives under certain conditions, by a divided vote, received much public attention in the United States and served to renew discussion of the question in religious circles. A Jewish rabbi writes that he regards the increasing interest of religious leaders in birth control as one of the chief events of 1930. Protestantism is evidently seriously divided on the question. Liberal rabbis and ministers are increasingly in favor of the dissemination of information regarding methods of contraception under safeguards. In a study of *Seventy Birth Control Clinics* by Caroline Hadley Robinson (Williams & Wilkins, 1930) it is stated that the most formidable opposition to birth control in the United States comes from Catholic sources, and that liberal rabbis have been the most interested of religious leaders in the dissemination of information regarding contraception.

DEVELOPMENTS WITHIN JUDAISM

The religious organizations among Jews in the United States face the peculiar problems of minority groups in the midst of rapidly changing cultures. There is a stout opposition to special missionary activities directed by Christian agencies to Jews. There are intensive efforts to preserve the unique elements of the culture of the Jews, including their religious education. On the other hand, there are withdrawals by Jews from the distinctly Jewish institutions and social life which make difficult the work of the synagogue and temple.

Several well-informed rabbis state that the outstanding events of 1930 are related closely to the economic depression; that many synagogues and Jewish community organizations found themselves bur-

dened with costly buildings, heavy mortgages, and overexpanded organizations. They further state that Jewish social-work agencies have been forced by the depression and unemployment to concentrate on relief and to abandon constructive pioneering and experimentation which was under way.

The Commission on Social Justice of the Central Conference of American Rabbis (Reformed) published its annual "Message on Social Justice," on Labor Day, 1930, a practice begun in 1929, and which has elicited much public attention. The Commission on Social Justice has concerned itself with neglected social situations, such as the Centralia and Mooney-Billings cases, and has done much to call the attention of Jewish leaders to them. The Commission has also been able in several instances to co-operate with the Federal Council of Churches and the National Catholic Welfare Conference, both in research and in social action.

The restriction of immigration is stated by some rabbis to be a most significant influence upon Judaism. The accessions of the synagogue by immigration are much reduced, and relief problems have been more definitely localized and better understood. There is said by some to be an oversupply of graduates from seminaries who wish to go into the rabbinate; this has resulted in discussions of raising educational standards.

CATHOLIC ACTIVITIES DURING 1930

America, a Catholic weekly, published in its issue of January 3, 1931, a thorough review of the events of 1930 by eight Catholic writers. Among others, there are statements on "Catholic Action," "The International Scene," "The Missionary World," "Social Currents," "The Year in Education." The Catholic world was much concerned in 1930 with regulations of religious institutions in Russia. In protest against the Russian laws and their administration, Pope Pius XI was joined by many Protestant and Jewish individuals and organizations.

In the realm of Catholic action many events are chronicled, such as the inauguration on March 2, 1930, of the Catholic Radio Hour by the National Council of Catholic Men. In Catholic missions 1930 brought no "commanding events," but "continued progress, per-

fectly co-ordinated and very methodical." It is said to be the policy of the pontiff to encourage a native clergy everywhere, and consequently more Chinese bishops were consecrated and more seminarians raised to the priesthood. The latest report of the Society for Propagation of the Faith indicates an income of 55,319,780 lire for the twelve months preceding March, 1930, of which a little less than half came from the United States.

In the statement on "Social Currents" during 1930, modernistic trends are deplored, particularly the tendencies to make "morality relative," and to regard religion as unnecessary. "The companionate marriage has again been made notoriously prominent. . . ." Special attention is given to the Conference on the Negro in Industry held August 30, 1930, by the Catholic Industrial Conference and the Federated Colored Catholics.

Students of Catholic social action call attention to the development of the Catholic Book Club; the spread of "the lay retreat movement"; the influence and activities of the annual Catholic conferences on industrial problems and on rural life; the spread of interest in relation of religion to economics, occasioned largely by widespread unemployment; "the greater interest in marriage and birth control, . . . and the continued insistence by the Catholic Church on its traditional position."

PROTESTANT DEVELOPMENTS

Among the significant events of 1930 are the establishment of the Church Conference of Social Work as an integral part of the National Conference of Social Work; the publication by the Federal Council of Churches of a handbook of information entitled *The Social Work of the Churches*, edited by F. Ernest Johnson, which includes a review of social trends affecting religion and an extensive bibliography; the development of religious broadcasting; the holding of the American Home Missions Congress for the consideration of problems, policies, and plans, attended by over five hundred churchmen; the continued interest in the problem of church and state and the appointment by the Federal Council of Churches of a committee to study the relations of church and state in their historical and current aspects, which is to report to its constituency in 1932; a persistent

interest in mergers of various sorts, including movements for the union of important religious bodies, an expression of the integrative forces which many wish to substitute for the divisive tendencies which to a great degree have been the essence of Protestantism; reports of a revival of interest in worship, with interesting movements by typical Protestant congregations toward Episcopal and Catholic forms.

Foreign-mission enterprises and agencies in the United States were much affected by economic readjustments and political unrest throughout the world, according to the survey of 1930, by the editors of the *International Review of Missions*, published in January, 1931. One striking change in the conduct of mission work is evident from the following statement in the survey; "Gone are the days when the backing of a powerful government or the prestige of the white man could be counted as an asset to the missionary; and who will regret it?"

Missionary enterprises are generally in a stage of readjustment to a new world-situation. There is some confusion among missionaries and mission administrators as to their objectives. There are observers who contend that as the interest of the Protestant churches in world-peace increases, the interest in formal mission work decreases; this statement would, however, be disputed by others. Meanwhile, the latest study of giving to foreign missions indicates that these causes have received during the entire post-war period—to 1927—an average of 28.9 per cent of the total benevolences of eleven leading denominations, and that to 1927 there was apparently no loss of interest as evidenced by giving.³ National movements in various countries are undoubtedly making the prosecution of conventional missionary programs more difficult. Events in China, Turkey, and India are illustrations.

INTERFAITH RELATIONS

The year 1930 furnished illustrations of community efforts, such as the St. Louis Community Seminar of Catholics, Protestants, and Jews, for mutual understanding, appreciation, and co-operation. An-

³ Charles H. Fahs, *Trends in Protestant Giving*. New York: Institute of Social and Religious Research, 1929.

other expression of these tendencies is the work of the National Conference of Jews and Christians. A significant event was the co-operative publication of a report in pamphlet form on *The Centralia Case* by the Department of Research and Education of the Federal Council of Churches of Christ in America, the Social Action Department of the National Catholic Welfare Conference, and the Social Justice Commission of the Central Conference of American Rabbis.

SOCIAL RECONSTRUCTION

The part of religious agencies in social change or reconstruction is as yet for the most part obscure to the students of society. People make use of religious institutions for a variety of purposes; to one, religion is an escape from reality; to another, it is the means of creating a new society or the means of a radical reorganization of society; to another, participation in a church organization is simply a means of "meeting people." Many observers of religious organizations are critical of their reluctance to adjust to the changes in the cultures around them. Thus far, only minorities within the three great religions of the United States have been zealous in their work for social reconstruction. These minorities have, in certain instances at least, provided the irritants which have led those in positions of responsibility to change their policies in the direction of social change and reconstruction.

RACE RELATIONS

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ABSTRACT

The Negro and Indian situations have, on the whole, shown improvement. Greater economic security for the Negro has offset some of the effects of the economic depression; advancing educational standards since 1913 have been marked by the erection of the five-thousandth Rosenwald rural school. Greatly increased appropriations have been made for the Indian service. The policy leans toward "Americanization" with increasing pressure away from the reservation and toward the larger community. European and Mexican immigration have been greatly restricted, owing to the economic depression. On the other hand, immigration of territorial subjects has increased, with consequent friction in California over the Philippine situation, leading to legislative measures against the Filipinos.

Race, in this article, is used in its broadest sense to include not only the color races but also the other ethnic groups in the United States. This sketch, therefore, includes the events of significance in immigration from Europe and immigration from the territories of the United States as well as changes in the condition of the color races of the Continental United States.

THE NEGRO

Negro-white relationships have manifested some discouraging and some encouraging trends during the year. Lynching and violence increased and the economic depression weighed heavily upon the Negro, but there have been some evidences of gains in tolerance, educational progress has continued, and the Negro in the North has developed, at least temporarily, a more effective political solidarity.

The trend of lynching has been steadily downward since the first records were kept in 1889. Peaks have occurred corresponding rather closely with the major economic depressions. In 1892-93 the number rose from 91 to 155, in 1908 from 60 to 93, and there was a slight peak in 1915 and a marked rise during the war (1917-18) from 35 to 76. After the war the trend turned sharply downward until in 1929 there were only 9 outbreaks. In 1930, however, there were 21.¹

The 1930 number is still smaller than any year previous to 1923.

¹ *Records of Tuskegee Institute* (National Association for Advancement of Colored People, Records, 24).

It is therefore evident that the rise which accompanies each succeeding depression falls short of the previous peak, but that despite the efforts of a number of organizations to combat lynching, periods of depression are still times of danger.

On the constructive side, lynching has been approached by an intensive series of case studies by The Southern Commission on the Study of Lynching.

The effect of the economic depression on the Negro is not entirely clear as it is too recent. Several hypotheses are, however, fairly well supported by scattered evidence.

1. The first is that the Negro, as one of the most recently employed groups in industry, was hard hit, but not so hard hit as in 1920-21, when many were laid off because they had only recently entered industry. The intervening ten years have enabled many Negroes to acquire seniority records which kept them on the payroll.

2. In spite of losses in certain lines, the Negro has been able to make gains in others. In some cities pressure has led to the employment of Negro clerks in the stores largely patronized by Negroes, and in the expansion of Negro employment in municipal work.

3. In the South there is increasing pressure of the white population into the cities, endangering the Negro's hold on jobs which have been traditionally considered as "Negro work."

4. The virtual cessation of European and Mexican immigration will, in the long run, probably strengthen the position of the Negro in industry.

One of the encouraging manifestations of a more tolerant spirit was the flat rejection by the Georgia courts of the application of the American Fascisti for a charter. The avowed purpose of this organization was to place white people in jobs now held by Negroes. Though the Fascisti started in the same city where the Ku Klux Klan was launched and where that organization grew so flourishingly ten years ago, the Fascisti were strongly opposed and disrupted before the organization could spread or gain any prestige.

In politics the Negro was united first in opposition to the appointment of Judge Parker to the Supreme Court, and later in opposition to certain senators who had voted for his confirmation. Local issues

brought about solidarity in other cities. The results in Negro office-holding were the re-election of Congressman De Priest and the election of two judges, two state senators, fourteen state representatives, and a number of local officials. The agitation for Negroes to eschew their traditional alliance with the Republican party and cross party lines in order to vote for their friends gains headway as increasing numbers of Negroes become interested in municipal politics.

In education the encouraging interest in the erection of Rosenwald school buildings in rural districts was continued until the five-thousandth school was put up. These five thousand schools have been erected since 1913 and have appreciably raised the standards of Negro rural schools. The fund now contributes only to schools of more than one room. The Rosenwald Fund has also aided in the erection of a limited number of city vocational schools.

In the field of higher education a step forward was made by the several colleges of Atlanta and of New Orleans. The institutions in these two cities have merged and give promise of developing two real university centers. The work of Meharry Medical College was strengthened by a closer alliance with Fisk.

THE INDIAN

The year has marked progress in the rearrangement of the functions of the Indian office, chiefly in setting up the divisions of education and of agriculture and industries. W. Carson Ryan has taken charge of the division of education. These expansions were made possible by the appropriation for 1930-31 of \$21,500,000 for the Indian service, the largest appropriation ever granted by Congress and almost double the 1921 figure.

The appropriation for health was ten times that of 1920. A total of 557 new hospital beds was added and increased efforts made to secure accurate vital statistics. Closer co-operation with state health offices was also promoted.

The Indian service is consistently promoting the attendance of Indian children in public schools. The government is paying tuition for Indian children in 861 white-community public schools, 23 more than in 1929. The enrolment in public schools has increased from 35,000 to 38,000.

Thus the policy is crystallizing more and more, in both educational and vocational programs, to exert pressure away from the reservation and toward the larger community. Here the issue is joined between the philosophy of "Americanizing" the Indian and preserving his native mores. The present policies lean toward "Americanization" doubtless because it has been concluded that the rigid preservation of Indian culture would require a degree of segregation impossible of accomplishment in such a mobile nation.

EUROPEAN IMMIGRATION

The first part of 1930 was marked by the beginning of the effect of the application of the "national origins" quotas. This did not materially change the total number of immigrants, but increased the proportions from Northern Europe. These quotas, however, had hardly had time to be effective before the dangers of the unemployment situation became so manifest that even more drastic cuts in immigration were demanded. The American Federation of Labor asked for an absolute ban on immigration, but this was not granted. Likewise the President's request that quotas be cut in half for a year was not granted by Congress. The situation was met by a more rigid application of the section in the Immigration Act, making it possible to bar any alien likely to become a public charge. Under the wide discretionary power embraced in this clause instructions were issued to consuls to deny visas to practically all applicants. This policy had been applied before to Mexicans, and in April it was extended to Canadians while in September it was applied to Europeans. The result on European immigration was that while, under the quotas, over 13,000 visas could have been issued in October, only 1,700 were actually issued. This was an 87 per cent cut. Approximately this ratio continued in November and December and is continued into 1931.

The drastic restrictions are further evidenced by a 33 per cent increase in deportations and a rigid search for passport and visa frauds resulting in the discovery of several conspiracies in Europe to violate the immigration laws.

The repercussions of immigrant restriction on the social characteristics of the foreign-born population are marked. The dwindling

proportion of job-seeking males among the immigrants raises the proportion of women and children so that family structure is more balanced. In 1929, 61 per cent of all immigrants were women and minors while this group included 71 per cent of the total in 1930.

MEXICANS

Mexican immigration had reached such a peak in 1928 that there was a strong agitation for the passage of a bill to place aliens of that nationality under a quota comparable to European quotas. (The immigration quota acts do not apply to immigrants from North and South America.) Such a bill was passed by the Senate in 1930 but not voted on by the House before adjournment. However, the State Department, through the application of the "liable to become a public charge" provision, has so sharply reduced Mexican immigration that the demand for other restrictions is not so pronounced.

In the hearings on the bill to assign a quota to Mexicans the witnesses were clearly divided between the ranchers and railroad men who wanted no restriction on the Mexican labor supply and the labor leaders and social workers who feared a glut of the labor market and aggravated social problems.

TERRITORIALS

The restriction of European and Mexican immigration and economic depression in Porto Rico and the Philippines have injected a new element into the labor situation, viz., the immigration to the Continental United States of territorials who are neither aliens nor citizens but territorial subjects.

In the past ten years the annual immigration from Hawaii to the Continental United States has increased from 6,700 to 22,400; from the Philippines, from 900 to 6,500; from Porto Rico, from 10,000 to 18,000.

It is estimated in a recent survey of the Philippine situation in California by the Institute of Pacific Relations that there are 75,000 of these territorials in that state. Their presence has led to considerable friction and the violence which is the characteristic American method of handling racial situations. The survey referred to cites

an anti-Filipino riot in one place and minor outbreaks in several other Pacific Coast towns.

The presence of this group has led to the usual agitation for legislation restricting their immigration, and the Welsh bill designating Filipinos as aliens was introduced in April. Senator Shortridge substituted for this bill a bill to bar all immigration from the Philippines.

The Porto Rican group, while more numerous than the Filipinos, has not caused the same friction since the Porto Ricans have, for the most part, settled in or near New York City where they are mixed with so many other non-native groups that their presence is not so marked.

The great influx of Porto Ricans has, however, thrown an excessive strain on local social agencies. A better understanding of the problems involved was arrived at by a series of conferences of these agencies sponsored by the New York Welfare Bureau.

NEW SUBJECTS

During the year a congressional committee visited the Admiralty Islands and through the negotiation of treaties with native chiefs formally added to our roster of races 10,000 Polynesians for whom our prior responsibilities have been informal.

EDUCATION

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ABSTRACT

A general survey of the educational system of the United States by a representative commission is advocated in a volume issued by the National Industrial Conference Board. General principles to govern federal participation in education are recommended by the National Advisory Committee on Education. The North Central Association of Colleges and Secondary Schools has appointed a committee to propose new standards for the accrediting of colleges. The state institutions of higher education in Mississippi are dropped by the Southern Association of Colleges and Secondary Schools because they have undergone a political upheaval. Athletics continues to disturb colleges and universities. Standard tests and personal problems are given a substantial subvention to be administered by the American Council on Education. Curriculum revision is undertaken on a national scale. School supervision is studied. Education by radio and adult education make progress. New York University carries on extension courses with the help of an aeroplane. The care and protection of children receives wide attention as a result of the White House Conference.

ADJUSTING EDUCATION TO PRACTICAL LIFE

Near the close of the year 1929 the National Industrial Conference Board issued a book entitled *Public Education as Affecting the Adjustment of Youth to Life*. This book was prepared by a group of business men and educators, who had met a number of times in conference and had discussed in detail the criticisms made by employers and by students of American society of the products of American schools. The book emphasizes the necessity of meeting the criticisms of public education by adopting plans of education which are based on careful scientific studies. It goes farther and recommends the organization of a national commission, including parents, industrialists, representatives of labor, persons interested in welfare problems, and educators, to make a survey of schools and of the needs of practical life and to devise a plan of educational procedure free from the defects exhibited by the present system.

This book is a forceful, concrete expression of an attitude which is very general. There is a widespread belief that the present educational system is not as effective as it should be and that the costs of education, which have mounted rapidly in recent years, are not justified by the quality of service rendered by educational institu-

tions. Much discussion has been aroused by the book during the year past, and a movement has been inaugurated, sponsored by leading citizens, to carry through the program recommended.

The argument for participation by various classes of citizens in an inquiry of far-reaching social importance is set forth in the book in the following paragraph:

It is obvious, however, that such concerted effort in the field of comprehensive educational investigation cannot properly be undertaken, or even sponsored, by a body of representatives of any single interest or by any limited group of interests in our society, for either would fail to understand all the educational issues in their many ramifications and, moreover, would not command the fullest confidence of the whole community. This would apply likewise to an organization of employers in American industry or commerce, whether it be a trade association in its narrower sense or an industrial or business organization in its broader meaning. It would be true, too, of any organization representative essentially of the employees in American industry and commerce, whether in the nature of a trade union or otherwise. Further, an industrial organization engaged in scientific-research activity, such as the National Industrial Conference Board, could not properly attempt a comprehensive educational survey such as is needed, either under its own direction or with its own resources alone, for its primary interests lie in a specified field of industrial-economic research. A similar difficulty would arise in respect to sponsorship and direction of the proposed broad educational survey by any association of teachers or educators, for they are organized primarily to represent the professional point of view and to maintain professional interests. Objection might also be made to an investigation conducted solely under the auspices of any of the various educational foundations or jointly by several of them, for these foundations are designed primarily to concern themselves with special technical questions of organization and methods, from a professional point of view, and do not broadly reflect the diverse interests concerned in the public educational problem. Within this category, also, are social-service groups, associations of parents, and like bodies.

FEDERAL PARTICIPATION IN EDUCATION

A committee created by Secretary Wilbur of the Department of the Interior, known as the National Advisory Committee on Education, has been preparing during the past year a report dealing with the problem of federal participation in education. This Committee has issued a preliminary statement of principles based on a series of conferences conducted by the director of investigations, Dr. Henry Suzzallo.

The problem with which this Committee is dealing can be explained by saying that the federal government has been drifting in the direction of greatly increased participation in public education through special grants and through the establishment of agencies which have of late assumed large directive powers. This drift is apparently not the result of any clearly defined policy on the part of Congress; it is the result of a series of campaigns waged by special interests to control education in the states through federal subventions. Furthermore, with every addition to the territory of the United States, social and educational obligations are thrust on a federal government which has no definite colonial policy and no centralized agency for the formulation of such a policy. The result is that the United States is today conducting education in dependent territories through the Department of the Interior, the Department of War, and the Department of the Navy.

The National Advisory Committee on Education is unanimous in its advocacy of a greatly enlarged national program of educational research. There are types of information needed to direct American education which only a national agency can collect. Routine statistics from the school systems of the various states are examples of such information. Furthermore, special nation-wide inquiries with regard to particular kinds of educational activities should be made from time to time by the federal government. Examples of such special inquiries which have been made by the United States Office of Education or are now in progress are the survey of the land-grant colleges, the report of which was published in December, 1930, the national survey of secondary schools, which was begun in 1929, and the national survey of teacher-training, which was begun in 1930 and is operating under an appropriation of \$200,000 made by Congress.

The National Advisory Committee on Education has adopted by an overwhelming majority the principle that the federal government should not require that state funds match federal subsidies or that federal subsidies be used for designated purposes. Both requirements tend to distort the plans of state school systems and thus introduce a form of undesirable federal control.

The principle which underlies the policy described in the preceding paragraph is that the federal government should not exercise any control whatsoever over education in the states.

With regard to federal subsidies for education, the National Advisory Committee on Education is by no means certain. The concentration of national wealth in a few urban centers is complicating the problem of securing through local taxes the funds necessary for the conduct of schools outside the urban areas. It seems likely, unless the taxing systems of the states and of the nation can be radically changed, that the federal treasury will have to be called on to contribute more largely than at present to the support of schools.

There are other problems on which the National Advisory Committee on Education has not reached any decision. Chief among these is the problem of determining the type of federal agency which should be set up to bring together as far as possible the scattered educational activities of federal departments.

DEVISING NEW STANDARDS FOR COLLEGES

The North Central Association of Colleges and Secondary Schools, which is the pioneer regional association in devising and enforcing standards for colleges, has reached the point where it recognizes the necessity of adopting an entirely new type of standard. The standards on which this and other associations have been operating are of a somewhat formal type, emphasizing endowment, student registration, number of professorial members of the faculty, and material equipment. These standards have been shown to be inadequate because they do not take into account many progressive forms of operation, such as personnel programs, which are more effective in the training of students than are accumulations of material equipment.

A committee of the North Central Association has been making an exploratory study of the possibility of devising a new type of standard. This committee has visited a number of colleges which are recognized as eminently successful and has made an effort to discover the characteristics of these institutions which account for their success.

POLITICAL DISMISSALS IN MISSISSIPPI INSTITUTIONS

The academic world was shocked to learn of the wholesale dismissal of presidents and members of the faculties of the state institutions of higher education in Mississippi. The governor of the state had an ancient grudge against the institutions of learning. During an earlier administration he had shown himself so unworthy of public confidence that the academic group had opposed his re-election. After a period of retirement, he was again elected to the governorship. He immediately began to fill the board in control of the state institutions with his henchmen. As soon as a safe majority was established, the decapitation of the governor's opponents began, and the vacancies thus created were filled by inexperienced and incompetent people, who were political or personal friends of the governor.

The Association of Colleges and Secondary Schools of the Southern States, after examining the evidence regarding the dismissals, voted by an overwhelming majority to drop the four state institutions from the approved list of the Association. This action was followed promptly by similar action on the part of a number of national standardizing associations.

The Mississippi Education Association, made up of the teachers of the state, appointed a committee which has drafted a plan designed to make it impossible for any future governor to repeat the performance. The committee recommends a board of trustees for state institutions consisting of eleven members (with one additional member for the University of Mississippi), one of the eleven to be the state superintendent of education and the remaining ten to be appointed for overlapping terms of ten years.

State universities have suffered from time to time from political upheavals not unlike that which has taken place in Mississippi. Apparently, it is necessary for states to have direct experience of the evil effects of such happenings in order to arouse public opinion to a full appreciation of the disadvantages of political interference.

ATHLETICS AND FACULTY CONTROL

The year 1930 has been a year of serious trial of colleges and universities with respect to their athletic relations. The report on athletics of the Carnegie Foundation aroused much discussion. This re-

port revealed some of the facts but by no means all of them. It is very generally recognized that coaches of athletic teams know of irregularities in opposing teams but are unwilling to protest players because they are themselves guilty of similar breaches of the rules.

The struggle of vested interests to avoid faculty control of athletics grows more intense rather than less so. The effort on the part of the administration of the State University of Iowa to regain faculty control of athletics has led to a roundabout attack on the president. The University of Kansas was dropped from the "Big Six" but was reinstated before the North Central Association of Colleges and Secondary Schools could review the situation. The University of Minnesota has received a report from an outside committee of three, which was organized by the president of the university, and it seems for the moment that the administration is in control.

The North Central Association of Colleges and Secondary Schools has been making an intensive study of athletics in several states and has found conditions which call for serious consideration at the annual meeting. Apparently, there is very little hope of securing clean athletics without the intervention of the standardizing associations.

STANDARD TESTS

Much interest has been exhibited in recent years in the development of standard tests by means of which colleges and schools may compare their achievements. The Carnegie Foundation sponsored an elaborate series of investigations in the colleges and high schools of Pennsylvania. The American Council on Education has for some years past supplied a large number of colleges with standard tests for use in rating entering students. These and other movements for the development of adequate tests have been united, and the Committee on Personnel of the American Council on Education, under the chairmanship of Dean Herbert E. Hawkes of Columbia College, is now equipped to undertake an extensive experiment in the refinement of tests. The General Education Board has supplied this committee with a fund of \$500,000 for its work. This fund is to be used during a period of ten years for developing and standardizing tests and for investigating the virtues and defects of various types of tests.

STUDIES OF THE CURRICULUM

A number of school systems in the United States have been engaged in recent years in revisions of their curriculums. It has become evident that co-operation on a national scale is the only efficient method of bringing about desirable reforms in the content and methods of teaching. Specialists in various fields have organized national committees and have produced studies which are of great importance for the future organization of teaching. The results of one study, namely, that of the modern languages, which was begun some years ago, have been appearing in a series of volumes. These volumes have aroused much discussion during the past year because there is lack of agreement with regard to the emphasis which should be placed on rapid, extensive reading—a type of exercise favored by the committee in charge of the Modern Foreign Language Study.

A second curriculum investigation which is being sponsored by a national association is the investigation of the social studies. The American Historical Association is sponsoring a commission which is made up of representatives from the fields of economics, sociology, political science, and education as well as from the field of history. This commission is in its third year. It has prepared a statement of the objectives of the social studies, has studied the problems which arise when the social studies are introduced into the curriculum, has organized tests of the knowledge which pupils have regarding social relations, and has begun the experimental preparation of materials to be used in schools.

PROBLEMS OF SCHOOL SUPERVISION

The Department of Superintendence of the National Education Association devoted its 1930 yearbook to the problems of supervision. The centralization of control in city school systems has given rise to perplexing problems. Is the special art supervisor in authority over the teachers in a given school building with respect to the instruction in art, or is the building principal in authority, with the art supervisor merely acting as an adviser? Is the teacher authorized to experiment with methods of teaching, or must the teacher wait for permission from superior officers in the system? Uncertainty on such problems has led to antagonisms within school systems. The

development of supervision has been so rapid in recent years that general agreement has not been reached with regard to the best procedures to be adopted. It is important, therefore, that the whole problem of supervision be made the subject of serious consideration by school officers.

EDUCATION BY RADIO

Education by radio has received much attention during the year. A conference of experts from the United States, Canada, England, Ireland, and Mexico was held in June, 1930, at Columbus, Ohio, under the joint auspices of the Payne Fund, the State Department of Education of Ohio, and the Ohio State University, for the purpose of discussing the problems of education by radio.

William J. Cooper, United States commissioner of education, held a conference on October 13, 1930, of representatives of university broadcasting stations and others to discuss the problems which confront stations which include educational broadcasts in their programs. Small educational stations are being crowded out by commercial stations. The conference formulated a demand that Congress "enact legislation which will permanently and exclusively assign to educational institutions and government educational agencies a minimum of 15 per cent of all radio-broadcasting channels which are or may become available to the United States."

The school system of Cleveland, Ohio, is trying the experiment of conducting classes in arithmetic by radio. Lessons are broadcast from a central station by a selected teacher of superior ability. As a basis for the lessons, the pupils are supplied with sheets on which examples have been printed. The room teachers supervise the lessons while they are in progress and continue the instruction during intervals between the broadcasts.

UNIVERSITY EXTENSION BY AIRPLANE

New York University has an airplane in which extension lecturers are transported to and from the centers where they conduct courses. By this method of transportation the range of regular extension work is greatly increased, a center as far from the university as Jamestown, New York, being included.

WHITE HOUSE CONFERENCE

An outstanding conference of the year which included interests other than education but promises to be influential in increasing the attention given by schools to the health and general welfare of children was the White House Conference on Child Health and Protection. In opening this Conference Secretary Wilbur said in part:

The White House Conference on Child Health and Protection is to make a survey of our children, to study the forces influencing them, and to try to chart the wisest courses possible in our future management of youth. There is a duty that maturity owes to youth which can be carried out only by the fullest use of existing knowledge.

We have been fortunate in getting together this group of splendid, trained workers, and through their united efforts we anticipate that we shall be able to bring the great American public to a full appreciation of the responsibilities we owe to our children.

The White House Conference must not only gather information but develop methods for communicating it to those in every part of our country so that an interested and informed citizenship will unite in the solutions of the many problems of childhood.

The Conference, which was held on November 19-22, is to be followed by state conferences which will put into execution the plans formulated at the central meeting.

ADULT EDUCATION

Interest in adult education has increased greatly during the year. Adult-education councils have been organized in a number of centers. The University of the State of New York devoted its annual convocation in October to a discussion of adult education. One of the major problems in this field is that of bringing under supervision private schools for adults so as to prevent unqualified teachers or fraudulent institutions from imposing on the public. It has been suggested in many of the discussions that ultimately the public-school systems of the country will have to extend their efforts, which now cover many forms of adult education, so as to include all phases of this branch of education. Strong arguments can be advanced for public support of all kinds of classes for adults. Chief among these is the argument that adults need continually to readjust their habits of thought and action in order to keep abreast of the changes which are taking place in a rapidly evolving machine civilization.

GOVERNMENT

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ABSTRACT

Popular interest in changes in the federal government centers in prohibition enforcement, and in the organization of prisons and parole in the Department of Justice. A National Board of Parole, well paid by government standards, is recognizing the problem of federal prisoners. The foreign services of the United States are developing; Congress added an Agricultural Foreign Service.

Nineteen-thirty was a short legislative year for the states, but it was not barren of interesting governmental changes. In state government the Utah legislature proposed to the people a constitutional amendment to set up a Department of Finance under a Tax Commission, and Massachusetts established an administrative court, a Board of Tax Appeals, to pass on tax disputes. New York created a new well-paid Parole Board; and extended the control of the public authority over holding and management of public utility companies. In the regulation of air commerce the need for co-operation between federal and state governments finds a peculiarly appropriate field, and another example is the effort to create a national net to catch criminals through co-operation of state bureaus with one another and with the national bureau at Washington.

FEDERAL LEGISLATION

There was a considerable degree of activity in the last Congress among the bureaus of the federal administration. Probably the greatest interest was in the effort toward the solution of the puzzle of prohibition enforcement, enshrined in Public 273, by which the enforcement of prohibition was transferred from the Treasury to the Department of Justice, probably without leaving many mourners in the old home since the personnel was transferred to its new administrative jurisdiction by arrangement of the Attorney General and the Secretary of the Treasury; the plain Treasury and tax-collecting officers always disliked this police duty. The Attorney General will have a chance to try his hand at a very extensive police job, a task not wholly unfamiliar to the department. This transfer, however, throws a weight into the police side as against the law side of the department. Prohibition enforcement, however, did not make a clean getaway from the Treasury. There remains in the old haunt, to keep memories green, the Bureau of Industrial Alcohol. Permits for makers of industrial alcohol and collectors of internal revenue taxes are the *raison d'être* of the Bureau, but Congress recognized that in-

dustrial alcohol is one of the springs which aliment the stream of bootleg liquor, and devised a plan for joint control by allowing the Attorney General to share with the Secretary of the Treasury in the making of regulations and in approving applications for permits or renewals. As is usual in the government service, the Bureau is under a single-headed control, a director, and this same single-headed control is applied to that other trying federal police problem, enforcement of the narcotic drug laws. Since narcotic drug control is based on a tax law, it was not removed with its fellow, prohibition, to the Department of Justice but, by Public 357, remains in the Treasury where a new Bureau of Narcotics under a commissioner will continue the police function of the act, leaving in the hands of the Commissioner of Internal Revenue the collection of the taxes on drugs themselves and on those authorized to deal in them.

Interdepartmental co-operation is in evidence by the duty given to the Public Health Service to make investigations to find out the amount of drugs required to supply the medicinal and scientific needs of the country and to advise the Commissioner, whose duty it is to determine the amount of crude opium and coca leaves that may be imported. Within the Treasury, co-operation between customs men and the narcotic field officers is to be brought about by the delegation of the power of customs officers to the narcotics field force. Co-operation even outside the government is the watchword of narcotics, since the Secretary is told to co-operate with the states, especially in respect to narcotics legislation and prosecution of narcotics cases.

Co-operation between states and the United States, through federal subsidies and federal advice and direction of state agencies, seems to have been a success in the field of vocational rehabilitation, since, by Public 317, the service is extended for three years.

The Public Health Service was considerably extended. Public 251 establishes a national institute of health under the control of the service, designating the Hygienic Laboratory as the institute, but appropriating three-quarters of a million dollars for additional buildings to be used for research. As in the case of the Library of Congress, gifts and trust funds may be accepted for the Institute and it is to be made available to state and local public health authorities

for study and investigation. Officers of the Service may be assigned for research to institutions outside of the government by Public 106, which also increases the salary of the surgeon general, a recognition of his important place in the public health field.

The Radio Commission, Public 25, and the Federal Power Commission, Public 412, consecrate the principle of independent boards for administrative and semi-judicial functions having to do with the granting of licenses and regulation of licensees in the public interest. The Radio Commission was intended to be changed at the end of a short time into an appeal board, its administrative and licensing powers being transferred to the Secretary of Commerce. But after being continued by special acts, it now practically becomes permanent, retaining its original powers. The Power Commission developed the other way around. It began as an *ex officio* commission of three secretaries, War, Interior, and Agriculture, but has now, on the president's recommendation, been composed of five whole-time, salaried members, appointed by the president and Senate, who are to have control over the appointment of officers and employees. The act consecrates the failure of an attempt to carry on an important duty of this type, with an interdepartmental organ, theoretically composed of secretaries, practically of subordinates to whom they delegate their powers, and who have no direct responsibility to the public or the president.

In these days, when world affairs are so much to the fore, it is encouraging to find that Congress recognizes the interrelation of American and foreign agriculture by Public 304, which authorizes the Secretary of Agriculture to acquire and disseminate information on production and distribution of agricultural products and, somewhat euphuistically, to conduct abroad any activity affecting standards of American agricultural products in which the department may be authorized to engage. The committee report shows that Congress had in mind aiding the effective administration of farm relief and insuring an adequate information service to farmers. The international aspects of the Department of Agriculture are institutionalized by putting the officers of the department into the Foreign Agricultural Service of the United States. These foreign officers are to be designated as agricultural attachés and to be attached to the American

diplomatic missions or consulates of the United States. So the farmer through the foreign agricultural officers, and the business man through the foreign service of the Department of Commerce, are represented abroad as well as their elder brothers, the army and navy departments, who have always had attachés at the legations.

Those interested in that political phenomenon, the development of the British Empire, will observe the appointment of the Minister to the Union of South Africa, by Public Resolution 81, as recognition of the changing international position of the Dominions.

The interest of Congress in the Department of Justice did not stop with prohibition. Extension of the federal prison system was recognized by adding a Bureau of Prisons in the Department of Justice, by Public 218. The Bureau is in charge of a director, to be appointed by the Attorney General, who takes the place of a lesser official, the superintendent of prisons. The new Bureau has charge of federal prisoners and the director is authorized to contract with the states for their care. But if this cannot be done, the Attorney General may cause jails or other institutions to be set up for the detention of persons and the confining of convicts. Increase of prison means increase of parole functions, and this means better organization of parole, which is accomplished by Public 202, which creates a Board of Parole, composed of three members, appointed by the Attorney General, at \$7,500 per annum, less than the salaries paid in New York for a similar office. This Board takes the place of the boards of parole formerly existing at each government institution, thus centralizing the function and putting it in the hands of well-paid men, as government salaries go.

The increasing number of prisoners means a greater responsibility for providing work for them and this is recognized by Public 271, which regularizes the employment of the inmates of federal penal and correctional institutions under the control of the Attorney General. Their services may be made available for government work or for the production of commodities for government use, but there will be no competition with private industries nor will the government work be curtailed in navy yards and other government workshops by the employment of prisoners. Finally, a great work of collaboration in the detection of crime is given legislative blessing by Public

337, which sets up a Division of Identification and Information in the Department of Justice, to carry on the work of criminal identification and the collection of crime records, in collaboration with the officials of the United States, of the states, and municipalities. This work was formerly done without legislative authority other than an annual appropriation.

STATE LEGISLATION

Constitution.—The single constitutional change proposed in the year is in Utah, sec. 11, art. xiii, and affects taxation. If the voters at the next election approve, the present state board of equalization will cease to function and a modern tax commission will administer the tax laws of the state, including the duty of equalizing the valuation of property among the counties, made in the first place by the county boards. The commission has the duty of making the assessments of mines and public utilities, which are binding on all taxing authorities. It will be a sort of financial supervisory body to establish systems of public accounting, review proposed bond issues, revise the tax levies and budgets of local governmental units. The commission will consist of four members, no more than two of the same political party, and is to be appointed by the governor and senate "for such terms of office as may be provided by law" in place of the fixed term of the old board of equalization. The board of county commissioners will continue to act as the local board of equalization, a first appeal from the local assessors.

Co-operation in government.—A rapidly developing case of co-operation between the states and the nation occurs in the regulation of aircraft. The Federal Air Commerce Act of 1926 applied only to aircraft in interstate and foreign navigation and laid down regulations as to training of pilots and airworthiness of aircraft. It also established air navigation rules. Obviously it would be more than awkward to have varying rules of the road for interstate and intra-state airships, in the air over a state, and it would be very inconvenient if pilots and airships were subject to different criteria on applying for licenses. All commercial pilots and aircraft for interstate flying must have federal licenses and must obey federal rules in the air, at least while on interstate flights, so that obviously this uni-

formity can only be accomplished by state adoption of federal regulations. This process is under way. Kentucky 11 and Virginia 291 refuse to grant state licenses to either pilots or aircraft which cannot show a federal license. Kentucky further directs its air board to enact air traffic rules identical with those of the United States. Rhode Island 1435, which re-enacts a former law with some additions, makes it unlawful for any person to navigate any aircraft unless licensed and registered by the Department of Commerce. The air traffic rules must be identical with those of the Department of Commerce, which rules are made a part of the act "as though written herein." Thus Rhode Island goes a step beyond her sisters in that she accepts the licenses and rules of the federal authority without re-examination by a state authority.

Other state statutes show two kinds of co-operation, as in the air commerce, with the federal government and other states, and also between the state administration and local administrations. An interesting evidence of general co-operation is the New Jersey statute, 65, creating a State Bureau of Identification and requiring local enforcement officers to co-operate with the state bureau, while the state bureau itself is to co-operate with similar bureaus in other states and with the bureau in Washington, thus establishing a national system in which co-operate the arresting officers and clerks of courts and prison officials throughout the state, through their state bureaus, with their colleagues in other states. The old age relief acts of New York, 387, and Massachusetts, 402, also arrange a state system of care of indigent old people by co-operation between the local units and the state. The local units, in New York the public welfare districts, in Massachusetts the towns, make the original investigations and grants of relief subject to review by the state. In each system the state has a supervisory power over the general administration of the districts and over each grant, a power based on the contribution by the state of one-half the cost of the allowances in New York and one-third in Massachusetts. In New York the state pays one-half of administration expenses.

State officers and institutions.—Though the salary of the chief executive of a state is unlikely to have a decisive effect in the quality of governors, yet the very small salaries usually allowed are not conso-

nant with the dignity of the office, and if a commensurate sum were paid it would at least be easier for men without private fortunes or other means of support to take over the responsibility of two or four years of state service. It is encouraging to see that in the past year two states doubled the salaries of their governors—New Jersey by 27, from \$10,000 to \$20,000 a year without fees, and Virginia, 1, from \$5,000 to \$10,000. New Jersey by 176 adds a supplement to the Civil Service Act which makes the chief examiner and secretary of the commission the administrator of the act and puts him in the classified service rules, whereas formerly he was appointed and removed at the will of the commission. The new law does away with the old four classes of the classified service and puts the duty on the examiner to recommend to the commission a classification plan which may be changed with the approval of the commission, thus making the system somewhat more flexible. Veterans' preference is also abolished and express provision is made for a six months' working test period for each candidate after which the appointing authority may remove him and the commission may restore his name to the list for other employment. The chief examiner, in addition to his other duties, is directed to devise and instal training courses for the state employees and to check and approve pay-rolls and regulate hours of work. With the present interest over the position of the middle-aged, chapter 104 of New Jersey is notable. The act directs that persons over forty are not to be discriminated against for age in state or municipal employment, but takes consideration of their situation by declaring that they are not eligible for entry into the state or municipal pension funds. Kentucky 77 authorizes her State Board of Charities and Corrections to manufacture license plates for automobiles, either for Kentucky or for other states and also road signs, house numbers, or street characters. The profits of the sale of the manufactured articles are to pay for raw material, the salary of the free foreman, and to pay the Board of Charities for the labor of convicts at the rate of \$1.25 a day for able-bodied men, and 75 cents for others.

Boards and commissions.—The American tendency toward setting up an uncompensated board as the head of a governmental activity not involving semi-judicial powers is largely represented in 1930.

For example, the Mothers' Pension Act in Louisiana, No. 46, is administered by an unpaid board of three women and two men appointed by the governor to advise and direct the parish boards, also without compensation, who administer the pensions locally. The principle of freedom from political control so far as possible is evidenced in the overlapping terms which would make it difficult for any one governor to get control of the board, and in the power of the board to appoint a state supervisor who must be a woman, with experience in social case work. The act shows the realization of the importance of administration both by giving the state supervisor a general control over the work of the local boards and in the provision requiring the local boards to set aside not more than 5 per cent of the total funds available for administrative purposes. The State Airport Commission in Rhode Island, 1353, is also an unpaid commission, but it has a strong political flavor, as it must be appointed by the Governor and senate, and one member must be from the senate, one from the house. The commission is given the duty of constructing and operating an airport. The new State Textbook Commission in Kentucky, 35, looks like an interesting effort to get as far away as possible from politics. The old commission consisted of the governor, the state superintendent of public instruction, and ten members appointed by the governor for four-year overlapping terms, while the new commission consists of eight members appointed for overlapping four-year terms, by the State Board of Education, and a ninth who is superintendent of public instruction. The same state, 156, recasts its Highway Commission abolishing the old four-headed board in favor of a new eight-headed board and changing the appointing power from governor, to governor, lieutenant-governor and attorney general, for four-year overlapping terms. This statute makes a redivision of the state into eight instead of four highway districts and secures thus a wider representation of local interest. Kentucky steps aside from the principle of unpaid boards in establishing by chapter 3 a Forestry Department which it puts under control of the commissioner of agriculture and the state forester. It will be interesting to see whether an unpaid board from all over the state finally develops, if the forests are extended. Massachusetts uses the unpaid board as an advisory council to the new Division of Smoke

Inspection in the department of public utilities. Chapter 380 creates the division under a director and the advisory council. The Commission of Public Utilities appoints the director with the consent of the governor and council, thus requiring double control with its accompaniment of divided responsibility. The commission also appoints the council for overlapping terms of three years.

The most notable departure from the unpaid board is New York 824, creating the new Parole Board as the head of the Division of Parole in the executive department, and therefore directly under the governor. As the division has a semi-judicial power, that of passing on applications for parole and breaches of parole, it is headed by a board of three members appointed by the governor and senate for overlapping terms of six years. The state is trying the experiment of a paid board and the more novel experiment in parole, of a well-paid board. The legislature evidently thinks that the function of parole is important enough to make it worth while to pay salaries sufficient to attract good men. This part of the experiment will interest students of government. The tenure of office of members is protected by requiring the governor to give a hearing before removal. They must give their whole time to their work and must not serve as representative of a political party or on the governing body of any political organization. The board must meet at the different state institutions to pass on applications for parole and all the members must be present to vote on the granting of parole. Independent continuous study of prisoners is assured by the right which the board has to assign a representative in each institution who can thus give it an opinion on cases of parole, independent of that of the prison authorities. The board has jurisdiction over paroled prisoners and acts on delinquents and on cases of parole violators who have been recaptured. In addition to its power over parole the board investigates for the governor cases of prisoners applying for pardon or commutation of sentence or restoration of citizenship. The board with the approval of the governor appoints and has power of removal of an executive director who is paid \$9,000; and the board without the governor appoints the parole officers who are in the civil service. The chief receives \$6,000. It is significant that there is set up in the division an employment bureau under a director at a salary of \$4,000.

Following the lead of the federal government, Massachusetts 416 creates in the department of the state treasurer, but not under his control, a paid board of tax appeals of three members appointed by the governor and council for six-year overlapping terms. For the semi-judicial powers exercised by this board, a volunteer board or a single official would clearly be unsatisfactory. This special board takes the place of an *ex officio* board consisting of the state treasurer, state auditor, and a member of the council designated by the governor. As is so common with administrative courts the decision of the board is made final as to facts, with an appeal as to matters of law to the full bench of the supreme court. The legislature evidently believes that the experience of the board should be taken advantage of for its own purposes, since it requires the board to make annually suggestions as to changes in the existing tax laws.

The single-headed state bureau has its adherents. South Carolina, No. 823, separates the child placing bureau from the department of health and sets it up independently as the Children's Bureau under a supervisor to be appointed by the governor and senate for six years. The legislature did not choose to say that the supervisor should be a woman, but shows what it had in mind by declaring that the officer shall be paid "for *her* services an annual salary" to be fixed by the General Assembly. The Bureau does placement work for the delinquent and dependent children committed to its care. It must make careful investigation of the prospective homes and of the children after placement. A centralizing of state function is exemplified in the bureau which is to act as an investigating bureau for any state institution in respect to applications for admission and dismissal of children. An interesting extension of state activity is the Division on Necessaries of Life created in the department of labor by chapter 410 of the Laws of Massachusetts. The division is single-headed with a director appointed by the commissioner, assistant commissioner, and associate commissioner of the department, with the approval of the governor and senate. The division is to study prices of fuel, gasoline, and refined petroleum, and the rent of property for living purposes. It has no power of decision but may only make investigations and publish findings. In the courts of its investigations, however, it may

examine witnesses and require production of books, and the justices of the supreme court may compel the attendance of the witnesses.

There is only one instance of consolidation—Virginia 81 transfers the duties of the Livestock Sanitary Board to the State Board of Agriculture. The note of co-operation is struck by an instruction to the State Board to co-operate with the livestock sanitary control officers of other states, and with the United States government.

There is the usual expression of confidence in self-government of professions of which an example is Kentucky 168, creating a professional unpaid Board of Examiners and Registration of Architects for overlapping terms of four years. Four of the members must be architects of ten years' experience in practice. The fifth is to be dean of the college of engineering at the University of Kentucky. Evidently the same state finds that a professional unpaid board is not always efficient in its discipline, since by chapter 142 the governor appoints one of the members of the State Board of Chiropractic Examiners as state supervisor of chiropractors with a salary, to act as administrative officer of the Board. New Jersey 112, on the other hand, evidences its confidence in a self-governing bar, by empowering the supreme court to compel the attendance of witnesses and the production of papers and records before the ethics committee of a bar association or lawyers' club, investigating alleged improper conduct of an attorney. A modification of self-government of professions occurs in two acts of Louisiana. No. 57 creates a Horticultural Commission of the commissioner of agriculture, the state entomologist, and the director of extension to regulate and license professional entomologists and tree surgeons. No. 78 creates a Board of Cotton Plant Breeders' Examiners containing also the commissioner of agriculture and the director of extension, but adding the dean of the college of agriculture. This board regulates the registration and certification of pedigreed cotton seed.

Public utilities.—An official investigation of public utilities in New York state disclosed many inefficiencies of administrative control. One of the most important was the helplessness of the Public Service Commissions in respect to holding and management companies. The legislature by chapter 760 has prescribed a remedy by expressly giving the commissions the power to require the disclosure of identity of

owners of substantial interests in the voting stock of all public utility companies under its jurisdiction and also the right to investigate transactions between companies under its jurisdiction. A forceful sanction for this provision is established by providing that no management, construction, or engineering contract made with any affiliated interest is effective unless filed with the commission, which may, after investigation and hearing, disapprove the contract, if found not to be in the public interest. Thus the commission will be given a supervisory control over the terms of contracts and the charges made by financing and management companies to the public utility corporations under their control. Chapter 761 requires full information of stockholdings in public utility corporations, including the names of the beneficial as well as the registered holders of stock, and copies of agreements to hold stock in trust. If the information required is not available in any other way the commission may require sworn statements from any person or corporation who can give the necessary information. By chapter 773 an effort is made to control the rates of public utilities during suits for injunctions in the federal court to restrain an order of the commission fixing rates. The commission is allowed to ask the appellate division of the supreme court, an intermediate appellate court in New York, to enjoin the corporation from charging higher rates than those fixed in the order appealed from. Another interesting innovation is chapter 850 which creates a Bureau of Valuation and Research, in the Public Service Commission. The bureau consists of the director and eight assistants to be appointed by the commission. The bureau is to investigate costs and rates, including the efficiency of the companies, and also value and continually revalue property useful in public services, so that the value basis for rate making will be reliable and up to date.

Radio broadcasting stations are put under the control of the public utility commissioners by chapter 15 of New Jersey. They cannot operate without a certificate of public convenience and necessity, which is granted after hearing in which the board determines whether the station will serve the public safety and convenience and will not cause undue interference. The board may impose restrictions to prevent such interference. Constitutional considerations probably moved the legislature not to apply the act to existing stations until

they desire to change power, wave length, or hours of operation, and also not to apply it to stations under the jurisdiction of the Federal Radio Commission.

Legislation.—The principal act having to do with legislation is the modification of the Legislative Reference Bureau in Virginia. Chapter 254 establishes in place of the old bureau a Division of Statutory Research and Drafting, in charge of a director appointed by the governor with the approval of the General Assembly. The director must be an experienced lawyer and must also have been a student of political science for at least twelve months and have had experience in the drafting of statute law. To the director's duties as draftsman are added that of cataloguing and publishing a list of state publications available for sale by the state, and also to examine the statutory law of the state and report on all irregularities and defects and all obsolete laws and laws requiring amendment. The director is given a recess job which consists in the revision and codification of all general laws not embraced in the amended code, for submission to the General Assembly. The only other legislative provision is chapter 3 of Utah. The old law provided that when vacancies occurred in Congress or the state legislature the governor should call a special election, except when there was no session before the next election. The amendment makes it look as though the legislature did not think it so important to fill vacancies promptly, since it requires the governor to issue a proclamation for the filling of the vacancy at the next general election, calling a special election only if he believes an emergency exists.

